

NCHRP

SYNTHESIS 473

NATIONAL
COOPERATIVE
HIGHWAY
RESEARCH
PROGRAM

Indefinite Delivery/Indefinite Quantity Contracting Practices



A Synthesis of Highway Practice

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**Indefinite Delivery/Indefinite
Quantity Contracting Practices**

A Synthesis of Highway Practice

CONSULTANTS

Douglas D. Gransberg

and

Jorge A. Rueda Benavides

Iowa State University

Ames, Iowa

and

Michael C. Loulakis

Capital Project Strategies, LLC

Reston, Virginia

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

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Cover figure: IDIQ acronym, which stands for Indefinite Delivery/Indefinite Quantity, surrounded by six common alternative terms used to refer to IDIQ contracts and six pictures related to construction transportation activities.

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FOREWORD

Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-5, “Synthesis of Information Related to Highway Problems,” searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, *Synthesis of Highway Practice*.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

By Jo Allen Gause
Senior Program Officer
Transportation
Research Board

This synthesis examines practices related to the use of Indefinite Delivery/Indefinite Quantity (IDIQ) contracting by transportation agencies for highway design, construction, and maintenance contracts. IDIQ allows for the delivery of services or products that are not known at the time the contract is executed. Sometimes called job order, push-button, on-call, stand-by, or master contracts, IDIQ provides a public agency with a great deal of flexibility to use the IDIQ contractor as much or as little as needed, depending on the requirements of the agency and the availability of funds.

Information used in this study was gathered through a literature review, an analysis of IDIQ procurement documents from state departments of transportation, agency policy and procedure manuals, and follow-up interviews for examples.

Douglas D. Gransberg and Jorge A. Rueda Benavides, Iowa State University, Ames, Iowa, and Michael C. Loulakis, Capital Project Strategies, LLC, Reston, Virginia, collected and synthesized the information and wrote the report. The members of the topic panel are acknowledged on the preceding page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

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INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACTING PRACTICES

SUMMARY Indefinite Delivery/Indefinite Quantity (IDIQ) contracting is a method that “provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period.” So what’s in a name? IDIQ contracting has been in use by public transportation agencies for several decades under a myriad of different names: job order contracts, push-button contracts, on-call contracts, master contracts, stand-by contracts, and the list goes on. However, all of these seemingly diverse procurement vehicles have one factor in common. They all provide a contractual vehicle to deliver more than one project using only one procurement transaction to advertise, evaluate, and award a contract that provides the capacity to deliver a quantity of services or products that is not known at the time the contract is executed. As will be shown in this synthesis report, this procurement method provides the public agency with a considerable flexibility to utilize the IDIQ contractor as much or as little as needed, depending on the requirements of the agency and the availability of funds.

The objective of this report is to identify and synthesize current effective practices that comprise the state of the practice related to the use of IDIQ contracting by public transportation agencies for highway design, construction, and maintenance contracts. The synthesis covers multiple aspects of IDIQ practice, including contracting techniques, terminology in use by transportation agencies, contract advertising and award practices, successful contracting procedures, pricing methods, risk management issues, and effective contract administration practices. Information contained in the report was drawn from the literature and a content analysis of IDIQ procurement documents, policy and procedure manuals from 32 different state departments of transportation (DOTs), two local transportation agencies, and 20 federal agencies. This was supplemented by an analysis of 76 legal cases related to IDIQ contracts in order to identify trends in court decisions under different types of conflicts and common sources of disputes between contract participants.

Information was also derived from a survey of state DOTs from which 43 responses were received; an 84% response rate. The industry perspective was derived from 18 contractor survey responses plus four face-to-face structured interviews. In addition, IDIQ contracts were analyzed from the Florida, Minnesota, Missouri, and New York State DOTs, and the Central Federal Lands Highway Division.

Although this synthesis is primarily focused on the procurement of IDIQ construction and maintenance services, the report also presents a short analysis and discussion on the state of practice of IDIQ contracting to procure design and other professional engineering services in the transportation industry. In addition, specific legal cases of disputes from four single award IDIQ engineering consultant design IDIQs were conducted and a multiple award IDIQ design contract in South Carolina was reviewed.

The study found IDIQ contracts in use in conjunction with design-bid-build, design-build, and construction manager/general contractor project delivery methods; combining the flexibility of IDIQ and its multiple project capacity with the benefits accrued by alternative project delivery. IDIQ contracts were awarded using low-bid, best-value, and qualification-based selection. The size of the contracts ranged from less than \$100,000 to large-scale federal

contracts in excess of \$1 billion. Thus, it appears that there are no functional or technical constraints on the method and that agencies will only be constrained by their own statutes, preferences, and ability to tolerate risk.

The synthesis reached two primary conclusions. First, IDIQ contracting can be applied to any form of procurement that an agency may choose to secure the capacity to deliver needed services and products across the life cycle of a typical DOT project delivery program. Evidence was found of successful application of IDIQ contracts in planning, design, construction, and maintenance. Therefore, IDIQs have shown the potential to become a useful tool in the DOT procurement toolbox.

The second major conclusion is that IDIQ contracts consolidate the need to conduct multiple procurement actions to deliver small, repetitive projects to a single transaction. Upon award, the agency gains the capacity to access contractor services by issuing individual work orders for each project. This capacity has been used by a number of DOTs as a means to efficiently obligate unused year-end funds to complete minor construction and maintenance backlog projects whose priority was too low to be funded in the fiscal year's budget. Therefore, IDIQ contracts enhance the efficient use of available capital by creating a mechanism to quickly fund needed work. This is especially valuable in the event of an emergency, because the IDIQ contractor is on board before the emergency occurs and was selected on the basis of competitive pricing. Thus, the need to acquire authorization for expedited procedures or sole source procurements is eliminated. Chapter six details 11 lesser conclusions and 19 effective practices found during the course of the study; it also makes four suggestions for future research to fill gaps in the body of knowledge and, more importantly, develop guidance for public agencies interested in implementing IDIQ contracting to shorten project delivery periods and provide the flexibility to complete as many projects as it can afford.

Major IDIQ future research needs as stated in this synthesis report are associated with four principal aspects: (1) the development of an integral framework that allows public transportation owners to implement appropriate IDIQ techniques throughout the project life cycle; (2) the development of an implementation guidebook related to the use of multiple award IDIQ contracts with competitive work orders by state DOTs; (3) an analysis of the use of construction task catalogs and adjustment factors (also referred as multipliers) and their impact on IDIQ contracting in the transportation industry; and (4) a complete analysis on the current use of IDIQ contracting to procure architectural/engineering, research, and other professional services.

In summary, IDIQ contracts were found to be effective means for maximizing the efficient use of available funding. The comprehensive analysis of IDIQ protests and claims found that the agency prevailed roughly 70% of the time. Therefore, in these days of deteriorating infrastructure and intense pressure to repair it, IDIQ contracting appears to be a promising approach for public engineering agencies to use to address requirements both large and small.

INTRODUCTION

INTRODUCTION

The Federal Acquisition Regulation (FAR) defines Indefinite Delivery/Indefinite Quantity (IDIQ) contracting as a method that “provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period” (GSA 2005). Although the definition applies specifically to federally funded projects, it was generally used in this study to identify IDIQ contracting practices in the transportation industry at the state level, but with a slight difference. For the purposes of this report, the decision on whether or not to establish “stated limits” on the quantities of work to be ordered under a given IDIQ contract is optional at the state level and depends on either constraints found in state regulations or on a given agency’s preferences. Thus, this synthesis report defines IDIQ contracts as those contracting approaches that involve the procurement of an indefinite quantity of supplies and/or services on an as-needed basis using individual orders over a fixed period of time. An order may be termed as a work order, task order, delivery order, or job order.

“A more expeditious and cost-efficient procurement process allows government agencies to successfully keep up with their procurement demands.”

(Sandner and Snyder 2001)

Federal IDIQ Experience

The General Services Administration (GSA) was created in the mid-20th century to accelerate the acquisition of supplies and services by federal agencies (U.S. Congress 1951; GAO 1979), and it developed the use of single solicitations for the acquisition of multiple supplies or services by issuing individual work orders. It was not until the mid-1990s that the use of IDIQ contracts was formally regulated through the enactment of the 1994 Federal Acquisition Streamlining Act (FASA) by the U.S. Congress for use in federally funded projects (U.S. Congress 1994). Thus, current FAR IDIQ contracting regulations are the result of successful practices observed in federal agencies over the past four decades and a number of amendments made during the 20 years since the enactment of FASA (Rueda and Gransberg 2014a), which have been complemented by the results of studies ordered by the U.S. Congress (U.S. Congress 1951; GAO 1979; OFPP 1997).

“[FASA] was designed to increase contracting efficiency—faster, better, cheaper—by reducing bureaucracy and giving contracting officers more flexibility.”

(Couture 2005)

Federal agencies realized a number of benefits from the IDIQ contracting approach, including shorter project delivery periods, lower preconstruction costs, and flexible delivery scheduling (OFPP 1997; Sandner and Snyder 2001; Rueda and Gransberg 2014b). Federal IDIQ successes led some state departments of transportation (DOTs) to adopt IDIQ techniques in their alternative contracting method toolbox. However, given marked differences between federal and state contracting statutes as well as the diversity found among the 50 states’ procurement cultures, many state DOTs realized that federal contracting procedures cannot simply be adopted for state IDIQ contracts. Therefore, each state transportation agency develops its own IDIQ contracting procedures within its current practices, specific requirements and preferences, and applicable state regulations (Rueda and Gransberg 2014a). As a consequence, the study team found a wide range of IDIQ contracting approaches across the country, giving this synthesis a rich pool of potential effective practices to report.

State-Level IDIQ Experience

Despite the great variety of DOT IDIQ contracting approaches, little formal research literature was found. Indeed, the literature on state-level IDIQ implementation is almost nonexistent. Only one state DOT, Minnesota, had addressed IDIQ implementation through formal research (MnDOT 2014). The Minnesota DOT (MnDOT) study developed an IDIQ implementation guide for the state. Thus, the literature review, surveys, and structured interviews conducted for this NCHRP synthesis report are complemented by findings and data collected for the MnDOT study.

This synthesis report benchmarks the current state of the practice of IDIQ contracting in the transportation industry. It also presents an analysis of the perceptions of different stakeholders (contractors, subcontractors, DOTs, and sureties) regarding IDIQ contracting and documents stakeholder perceptions of risk, successful practices, and potential improvements.

SYNTHESIS OBJECTIVE

The objective of this report is to identify and synthesize current effective practices that comprise the state of the practice related to the use of IDIQ contracting by public transportation agencies for highway construction and maintenance contracts. It covers multiple aspects of IDIQ practice, including contracting techniques, terminology in use by transportation agencies, contract advertising and award practices, successful contracting procedures, pricing methods, risk management issues, and effective contract administration practices.

Given the lack of literature about IDIQ contracting procedures at the state level, state DOTs have not had access to the essential information needed to develop and implement IDIQ procurement systems. The lack of knowledge and experience of some state agencies and their contractors can be considered a major weakness of this contracting approach (Farris 2002). The lack of IDIQ reference sources available for state DOTs compels agencies that want to use it to implement it by trial and error; constantly modifying their initial procedures until satisfactory results are reached. Thus, it can take a fairly long time for an agency to settle on a set of optimal procedures, possibly negatively impacting the agency and its contractors. Therefore, this synthesis report constitutes a valuable and timely tool as a point of reference from which state DOTs can develop efficient and suitable IDIQ contracting procedures or improve existing techniques.

PROJECT DELIVERY METHODS

For many years, traditional design-bid-build (DBB) contracting techniques were considered as a single, one-size-fits-all procurement tool for the acquisition of construction services. However, some limitations and deficiencies observed in DBB procurement systems have encouraged federal and state agencies to develop and implement alternative delivery methods and contracting approaches intended to “enhance quality, decrease cost, and compress the delivery period for public projects” (Gransberg and Shane 2010). For the last two decades, public owners have been expanding their procurement toolboxes and increasing their contracting capabilities with flexible sets of alternatives to adjust acquisition procedures to the unique needs of each project.

“Reducing the time from planning to construction of a project can ensure that the benefits of a project are available sooner to the traveling public.”

(Walewski et al. 2001)

By definition, a delivery method is a system used by owners to organize and coordinate planning, design, and construction activities such as DBB, design-build (DB), and construction manager/general contractor (CMGC) (also called Construction Manager-at-Risk or CMR), which are commonly used in

highway construction projects (Gransberg and Shane 2010). On the other hand, contracting approaches are tools such as A + B (Cost + Time) bidding, lane rental, and guaranteed maximum price (GMP) used to support procurement procedures stated by the selected delivery method (Walewski et al. 2001). In other words, delivery methods are intended to coordinate pre-construction, construction, and even post-construction (as required) activities, while contracting approaches are directed to address more specific aspects or cycles within a project life cycle.

Based on the definitions presented in the previous paragraph, IDIQ contracting is usually classified as a contracting approach (Walewski et al. 2001), since it is commonly restricted to design, construction, or maintenance activities in DBB contracts. However, survey information collected for this synthesis report showed that at least five state DOTs are using DB-IDIQ contracts. In this approach, the contractor is required to furnish design and construction services on each work order. Therefore, DB-IDIQ is merely an available contracting approach for DB project delivery. DB-IDIQ contracts deliver a group of similar types of DB projects within a single IDIQ contract. Likewise, survey data showed that some agencies have also combined IDIQ contracting with CMGC project delivery (CMGC-IDIQ or CMR-IDIQ), where the agency has a contract with a CMGC contractor to provide input during the design phase and perform as the general construction contractor for each task order (West et al. 2012). DBB, DB, and CMGC are further described here to provide an idea of how the various factors in DB and CMGC delivery differ with the same factors in DBB.

Design-Bid-Build

In DBB, design must be fully accomplished by either in-house or consultant designers before proceeding with the advertisement and award of a separate construction contract (Gransberg and Shane 2010). In other words, design and construction activities are contracted separately, so that there is no contractual relationship between the designer and the contractor as shown in Figure 1.

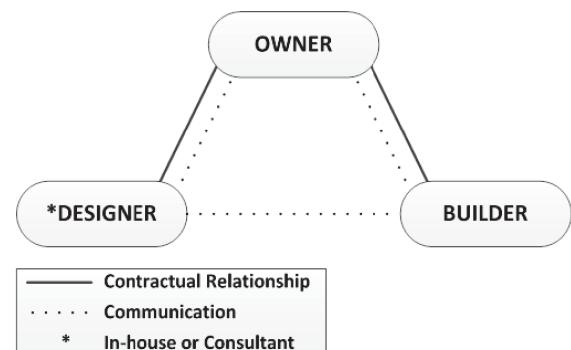


FIGURE 1 Design-bid-build.

Even though DBB contracts are usually awarded to the low-bid responsive contractor, they can also be awarded on a best-value or negotiated basis in order to mitigate risks related to the selection of a contractor who has submitted a low price proposal inconsistent with the construction documents (Scott et al. 2006; Gransberg and Shane 2010).

Design-Build

In this type of contract, the contractor (usually referred to as the design-builder) is in charge of furnishing design services and performing construction activities under the same contract. This substantial alteration in traditional relationships among contract participants (see Figure 2) is intended to overcome some DBB limitations such as the lack of ability to overlap contract phases, absence of constructability reviews, and lack of contractual incentives for contractors to minimize costs (Dunston and Reed 2000; Rueda 2013).

DB contracts are usually advertised and awarded to the design-builder who represents the best-value alternative identified through request for qualification (RFQ)/request for proposal (RFP) procedures. By allowing the contractor greater flexibility in the selection of design, materials, and construction methods, it is willing to increase its risk tolerance. Design-builders submit fixed-price proposals, making themselves liable for all design and construction costs (Graham 1997; Ibbs et al. 2003; El Wardani et al. 2006), including potential cost overruns resulting from design inconsistencies discovered during the construction period.

Figure 2 illustrates the relation, level of collaboration, and interaction among different contract participants under DB contracts. DB contracting decreases the owner’s responsibilities and increases a design-builder’s control over the project delivery process, allowing the reduction of project delivery periods and making DB a great alternative for “fast-track” projects (Alder 2007).

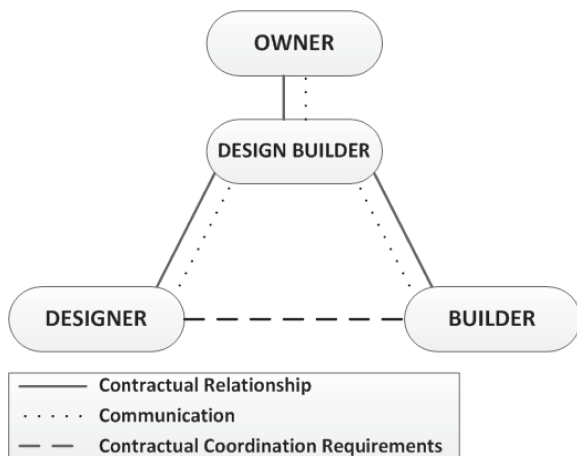


FIGURE 2 Design-build.

Construction Manager/General Contractor

The original purpose of allowing an early involvement of a construction manager during the design phase of a highway project and the posterior furnishing of construction services by the same person or entity was to improve procurement procedures by incorporating knowledge and capabilities lacking within the owner’s organization (Strang 2002). In CMGC project delivery, design and construction services are furnished through two separate contracts. The first contract is designed to obtain the construction manager’s input during the preconstruction phase on designs developed by either in-house or external designers. Usually, the second contract for construction services becomes effective after completion of all design and construction documents.

CMGC contracts often stipulate a GMP, which is a not-to-exceed sum (dollars) to be paid by the owner to the CMGC for all work contained in the contract documents. Thus, the contractor is liable for cost overruns, unless they were the result of changes in the project’s scope (authorized by the owner), in which case the GMP would be modified (Gransberg and Shane 2010). Frequently, these contracts also include incentive clauses inserted to encourage the CMGC to complete the project below the GMP by sharing with the contractor any cost savings. Figure 3 illustrates the contractual structure among CMGC contract participants. It also shows how this relationship remains unchanged between the owner and the designer (in-house or consultant), allowing the agency to maintain direct supervision and control over all preconstruction activities.

According to the Associated General Contractors of America (AGCA), there are two principal characteristics that define CMGC and differentiate this method from other delivery methods (AGC 2004): unlike DB, the owner advertises and awards separate contracts for the designer and the CMGC and, as opposed to DBB, the CMGC is usually selected based on qualifications, past experience, or through best-value procedures (FHWA 2014). Besides transferring risk related

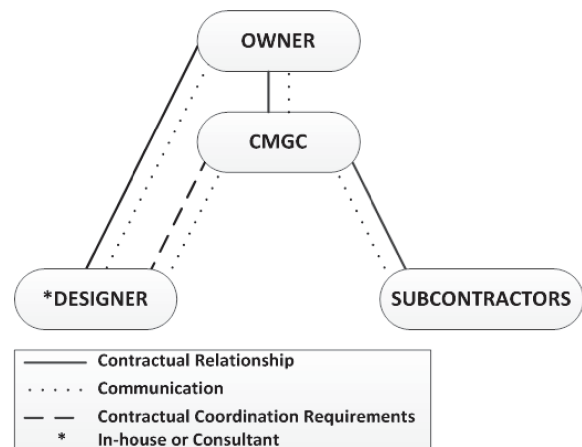


FIGURE 3 Construction manager/general contractor.

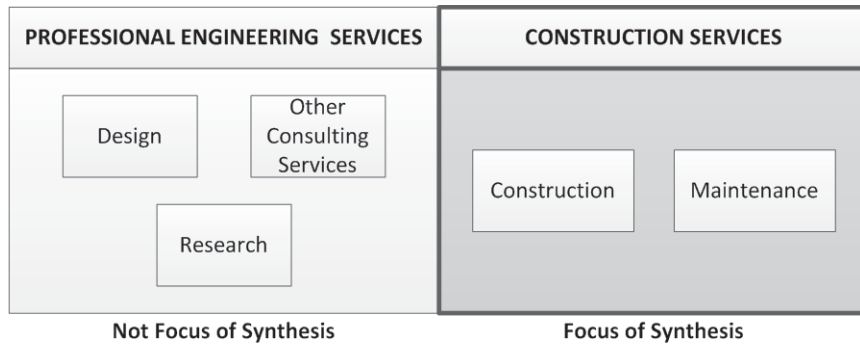


FIGURE 4 Types of work and services procured through IDIQ.

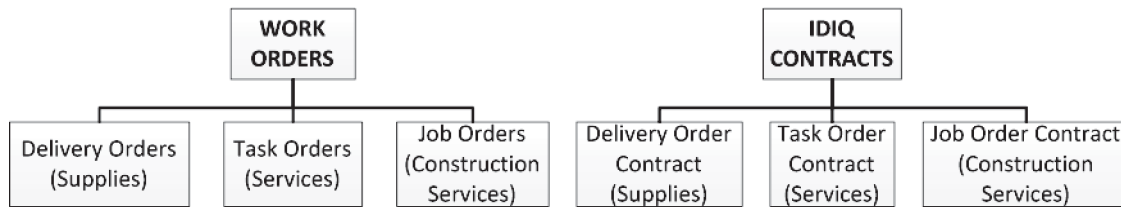


FIGURE 5 Work order and IDIQ contract classification scheme.

to cost overruns and construction delays to the CMGC, owners see in this delivery method an opportunity to enhance “constructability, real-time construction pricing capability, and speed of implementation” (Gransberg and Shane 2010).

INDEFINITE DELIVERY/INDEFINITE QUANTITY TERMINOLOGY AND KEY DEFINITIONS

A number of different IDIQ contracting approaches as well as a number of different terms used to refer to this type of contract and the work orders issued under them were identified. Figure 4 shows the different types of services usually procured by public owners through IDIQ techniques and highlights those types of contracts covered by the scope of this synthesis report. Correspondingly, Figure 5 presents a classification of work orders and IDIQ contracts in accordance with the different types of work and services presented in Figure 4. The terminology shown in Figure 5 is that used in this report unless a particular agency is being referred to, in which case corresponding terminology is used. The classification and terminology in Figure 5 was developed by considering two main issues: the distinction as outlined by FAR for supplies (delivery orders) and services (task orders) (GSA 2005), and the wide use of the term “Job Order” for construction services (which may include supplies and services) (Farris 2002; Rueda and Gransberg 2014a).

Figure 6 presents different terms that for the purposes of this study were considered to refer to IDIQ contracts because they meet the following definition:

- IDIQ: The type of contract that provides for an indefinite quantity of supplies and/or services whose performance

and delivery scheduling is determined by placing work orders with one or multiple contractors during a fixed period of time.

IDIQ may be considered a general concept that covers all terms in Figure 6, which are used by FAR, other authors, and some state agencies to refer to specific IDIQ contracts with restrictions either in scope, size, and/or number of contractors. Table 1 presents definitions given to some of the contracts contained in Figure 6. It is important to understand that these definitions are just some common descriptions for these terms, but they may vary among agencies; however, all of them usually meet the definition for IDIQ stated previously.

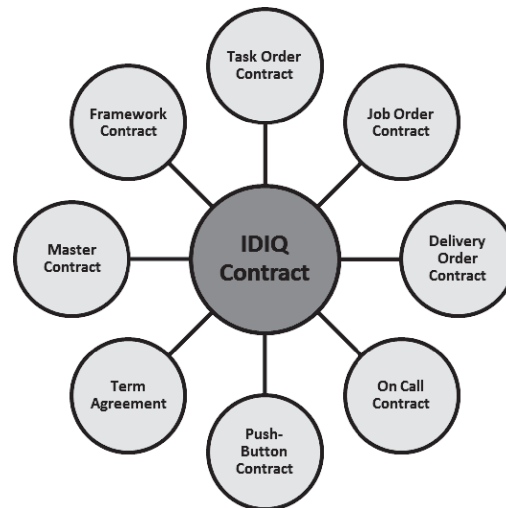


FIGURE 6 IDIQ terminology.

TABLE 1
IDIQ TERMINOLOGY—DEFINITIONS

Term	Definition
Delivery Order Contract	Contract for supplies whose performance and delivery scheduling is determined by placing delivery orders with the contractor or contractors during a fixed period of time (FAR 2005)
Task Order Contract	Contract for services whose performance and delivery scheduling is determined by placing task orders with the contractor or contractors during a fixed period of time (FAR 2005)
Job Order Contract	Contracts for construction services (Farris 2002) whose performance and delivery scheduling is determined by placing work orders (task, delivery, and/or job orders) with the contractor or contractors during a fixed period of time
On-Call Contract	Contract that involves a group of undetermined or predetermined small projects usually related to professional/engineering services, which are requested by issuing task orders (UDOT 2010b). Some state DOTs also use this term to refer to construction and maintenance/repair contracts (Maine DOT 2011; TennDOT 2010)
Push-Button Contract	Contract with a predetermined scope of work to be performed by the contractor pursuant to the agency's issuance of work orders, which specify location, project description, and amount of work required (FDOT 2012)

TABLE 2
IDIQ KEY DEFINITIONS

Term	Definition
Construction Manager/General Contractor IDIQ	IDIQ contract where the contractor furnishes preconstruction services during design and construction services on each work order.
Design-Build IDIQ	IDIQ contract where the contractor furnishes both the design and construction services on each work order.
IDIQ Contract Scope	The description of work to be done under an IDIQ contract. These contracts are most often used to procure services of a repetitive nature and whose scope is quite narrow and clear, allowing a greater control over pricing. For example, an IDIQ contract to complete an indefinite amount of pavement overlay is a typical scope limitation for a single award IDIQ contract.
Multiple Award IDIQ	"A single contract is advertised and a pool of qualified contractors is selected. Only those selected are subsequently allowed to bid on work orders. In most cases the work orders are awarded to the lowest bidder among the contractors in the pool" (Rueda and Gransberg 2014a).
Single Award IDIQ	"A single contract is advertised and awarded to a single contractor who then is awarded work orders based on the pricing furnished in the initial bid package" (Rueda and Gransberg 2014a).
Single Work Order IDIQ	"A single contract is awarded to [a] single contractor. Once the need to issue the work arises, the contractor then performs the desired services or furnishes the requisite supplies [a single work order issued during the contract period]" (Rueda and Gransberg 2014a).
Work Order	Every project to be executed within an IDIQ contract is developed under the issuance of a work order. A work order becomes the contract document that determines location, contract time, and scope of work. Moreover, a work order outlines all required pay items, quantities, and unit prices (MnDOT 2014). Also termed Task, Job, or Service Order.

Table 2 contains a number of terms used by the authors throughout this synthesis report and the definition given to them in this document. These definitions were either proposed by the authors or repeatedly encountered while conducting this study.

INDEFINITE DELIVERY/INDEFINITE QUANTITY GENERIC MODELS

During previous research conducted on IDIQ practices by the study teams, three different IDIQ contracting models were identified, which were determined in accordance with the number of contractors selected to participate in the contract and the expected number of work orders to be issued (Rueda and Gransberg 2014a). Figure 7 shows this classification and highlights the different IDIQ contracting models. Table 3 illustrates the structure of each contracting model and describes the most appropriate conditions for successfully using each.

These conditions are discussed in more detail throughout the report.

In the case of federally funded IDIQ contracts, FAR establishes a clear preference for multiple award IDIQ construction contracts [this preference does not apply to architectural/engineering (A/E) services], encouraging agencies

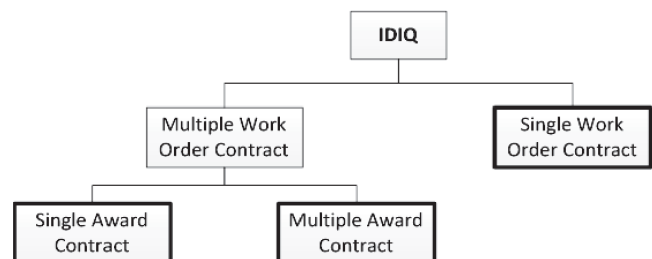

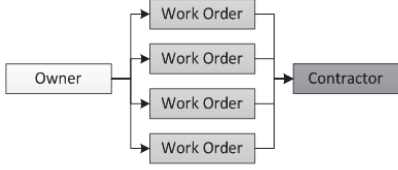
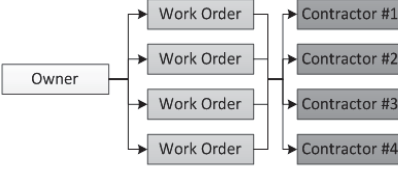


FIGURE 7 Generic IDIQ contracting models.

TABLE 3
IDIQ CONTRACTING MODELS STRUCTURE AND TYPICAL USE

IDIQ Model	Diagram	Typical Contract Characteristics
Single Work Order Contract		<ul style="list-style-type: none"> • When the agency foresees a future necessity that most likely will be fulfilled with one work order, but cannot fairly determine the total quantity of resources that will be ultimately required and/or the final delivery schedule. • Often used for emergency stand-by services, such as hurricane debris removal.
Single Award Contract		<ul style="list-style-type: none"> • For repetitive tasks or services contained in a narrow scope of work, allowing a certain degree of uniformity among work orders; • When only one contractor has the capabilities to perform all work orders to be issued under the IDIQ contract; or • When the agency considers that the ultimate number of work orders to be issued under the IDIQ contract will not justify awarding multiple contractors.
Multiple Award Contract		<ul style="list-style-type: none"> • For repetitive tasks or services contained in a broad scope of work, making it hard to determine a typical composition of work orders; • When more than one contractor has the capabilities to perform all work orders to be issued under the IDIQ contract; and • When the agency considers that the number of work orders to be issued under the IDIQ contract will justify awarding multiple contractors.

Adapted from Rueda and Gransberg (2014a).

to execute this type of contract, to the maximum extent possible, instead of single award IDIQ contracts (FAR 2005). This preference for a competitive multiple award approach is because this type of contract appears to represent more benefits for agencies as a consequence of a highly competitive environment (GAO 1979; OFPP 1997). However, some authors and agencies agree that this is not always the most appropriate approach (DoD 1999), which appears to be the case for state DOTs. For these transportation agencies a single award approach “seems to better fit their procurement methods and limited resources, and even with less apparent benefits, DOTs have perceived an opportunity to improve their contracting practices” (Rueda 2013) by executing single award IDIQ contracts.

Multiple award IDIQ practices are being used by some state DOTs. For this report four different multiple award contractual approaches used by these transportation agencies to procure minor construction/maintenance projects were found. These approaches differ primarily from traditional multiple award federal contracts in that the assignment of work orders among awardees is not fully competitive; the selection of a contractor to perform a given work order completely depends on the content of the bid package originally submitted to enter into the contract. A closer look at multiple award IDIQ techniques is presented in chapters three and four of this report.

STUDY APPROACH

Information used for this synthesis report was gathered using the following study instruments:

- Literature review,
- Survey of state transportation agencies,
- Survey directed to members of AGC and American Road and Transportation Builders Association (ARTBA) to acquire industry opinion and perspective on risks associated with IDIQ contracting, and
- Structured interviews with participants for practical examples of existing IDIQ programs.

Literature Review

The study team conducted a comprehensive literature review supplemented by a content analysis of IDIQ procurement documents, policy and procedure manuals, and others sources of written information about IDIQ practices implemented by different federal and state agencies following the protocol proposed by Neuendorf (2002). IDIQ-related documents were collected from 32 different state DOTs, two local transportation agencies (Metropolitan Atlanta Rapid Transit Authority and Washington Metropolitan Area Transit Authority), and 20 federal agencies from different sectors of the construction

industry. A look at federal contracting practices was primarily required to document the state of practice of this contracting approach at different levels and sectors to permit a comparison with state policies.

Additionally, content analysis techniques were applied to 76 legal cases related to IDIQ contracts (four design and 72 non-design professional services case studies) to identify trends in court decisions under different types of conflicts and common sources of disputes between contract participants. Results obtained from the analysis of these legal cases may become a valuable tool for DOTs to appropriately address risks factors related to award protests and litigation. By improving risk assessment procedures, these agencies may be able to develop strategies to avoid conflict escalation.

Surveys and Interviews

Using information collected from the literature review and applying the protocol prescribed by Oppenheim (2000), two different questionnaires were developed aimed at state DOTs and industry representatives (AGC and ARTBA members). A total of 43 survey responses were received from state DOTs, including the District of Columbia DOT, yielding an 84% response rate. In addition, 18 contractors were contacted to collect the industry’s perception of IDIQ contracts. Face-to-face structured interviews were conducted with four of these contractors following procedures used by the U.S. General Accounting Office (referred to as the U.S. Government Accountability Office since 2004) (GAO 1991). The interviews with transportation-related contractors allowed an in-depth discussion of some key aspects of IDIQ contracting, and also allowed the collection of more detailed information about their risk perception with regard to this alternative contracting approach.

IDIQ Project Cases

Cogent information gathered by the authors while developing an IDIQ implementation guide for MnDOT is also presented in this synthesis report (Gransberg and Rueda 2014). This information played an important role in benchmarking the state of practice of IDIQ contracting and identifying effective procurement techniques among state transportation agencies. This information was collected through structured interviews with project engineers from the Florida, Missouri, and New York State DOTs and the Central Federal Lands Highway Division (CFLHD), and a subsequent case study analysis of IDIQ contracts executed by these agencies plus one contract awarded by MnDOT (Rueda and Gransberg 2014b). In addition, this report contains a work order case from the New York State DOT, which was previously analyzed in *NCHRP Synthesis 438: Expedited Procurement Procedures for Emergency Construction Services* (Gransberg and Loulakis 2012), and one case from a multiple award IDIQ executed by the South Dakota DOT. The cases were collected using Yin’s methodology for case study data collection (1994).

Surveys

Likewise, information collected specifically for this synthesis is compared with three different surveys conducted for MnDOT of 56 contractors and subcontractors; 54 MnDOT staff members involved in the planning, execution, and closing of IDIQ contracts; and 39 surety companies doing business in Minnesota. Although this was a local study, it is important to consider that most of the contractors and surety companies do business in other states, and some have participated in IDIQ contracts executed by other agencies (including non-transportation agencies), which broadens the value to their opinions, perceptions, and suggestions for improvement. Figure 8 shows IDIQ contracting users and highlights those state transportation agencies that are not permitted to use this contracting approach. This figure also indicates those DOTs involved in the case example analysis and those whose solicitation documents and procedures manuals were reviewed in the content analyses.

All information in this section was analyzed, compared, and contrasted to develop conclusions, identify effective IDIQ practices, and describe important gaps between the state of art and the state of practice that would benefit from future study.

Protocols to Develop Conclusions and Suggestions for Future Research

Information collected through each study instrument was individually analyzed and intersections of trends found in two or more of these tools were used as the major factor to develop conclusions. Concurrent trends observed in more than one data set were important to identify effective IDIQ practices when the observations came from different contract participants.

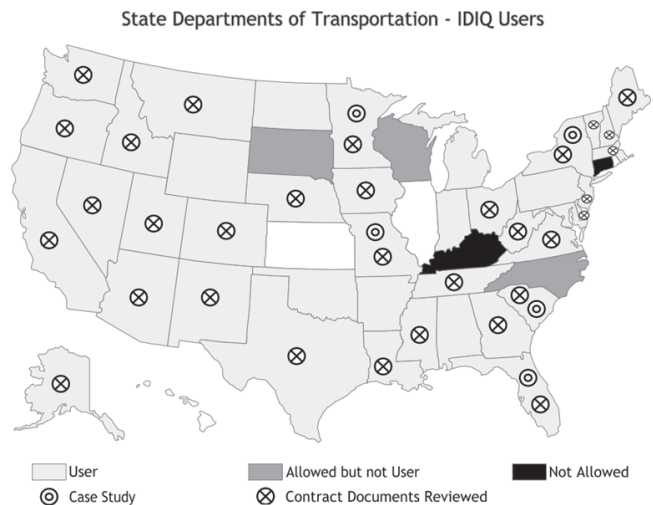


FIGURE 8 IDIQ users, case studies, and IDIQ document content analysis map.

ORGANIZATION OF THE REPORT

The remainder of the report is organized as follows:

- Chapter two—Legal and Contractual Issues Associated with IDIQ Contracting
- Chapter three—Indefinite Delivery/Indefinite Quantity Procurement Policies, Procedures, and Programs
- Chapter four—Indefinite Delivery/Indefinite Quantity Contract Administration Procedures
- Chapter five—Indefinite Delivery/Indefinite Quantity Contract Examples
- Chapter six—Conclusions

The next chapter will set the legal foundation for understanding the details contained in subsequent chapters. It consists

of survey results regarding statutory authority and limitations and a formal content analysis of 76 specific legal case studies associated with IDIQ procurement. Chapters three and four synthesize data obtained from the literature, surveys, and structured interviews and review findings as they relate to different procurement and administration procedures required to plan and execute IDIQ contracts. Chapter five comprises an analysis and discussion of the six IDIQ contracts and one work order mentioned earlier in this report. It presents six different contracting approaches from agencies with different contracting systems. Finally, chapter six provides a summary of the key findings of the synthesis project, including effective IDIQ contracting practices and comments on the state of research and opportunities for additional research.

LEGAL AND CONTRACTUAL ISSUES ASSOCIATED WITH INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACTING

INTRODUCTION

The legal and contractual issues associated with IDIQ contracts are in many ways no different than those faced in a typical construction or DB contract. They generally fall into one of these four categories:

1. Protest of award
2. Breach of contract after award
3. Changes to the contract
4. Contract administration issues, such as insurance, payments, quality, etc.

The major difference is that IDIQ contracting involves a series of individual contracts, and each of these contracts could generate a dispute. As discussed in chapter one, these mini-contracts have many different names, including job order, task order, and work order. For purposes of this report, the term “work order” will be used to maintain consistent terminology. It can be noted that federal IDIQs appear to be generally called task orders. Additionally, federal competitive IDIQ contracts are usually termed Multiple Award Task Order Contracts (MATOC). It was found that the predominance of IDIQ case law exists in the federal sector.

The other major difference is that most IDIQ contracts contain language extending the term of the contract without competition for several years. As such, contractors develop their proposals with a risk profile that is fundamentally different from a single standalone contract (Farris 2002). For instance, the typical IDIQ will be structured with a guaranteed minimum amount of work beyond which the agency is not obligated to pay. These contracts also are capped with a not-to-exceed amount over which the government may not pay. Federal IDIQs have evolved to have very low guaranteed minimum amounts (\$5,000 to \$20,000) and very high not-to-exceed amounts that sometimes exceed \$1 billion. Therefore, competing contractors must structure their price proposals accordingly. In most cases, they are provided with an expected annual ordering amount around which they will price fixed costs such as mobilization, home office overheads, and the like.

Federal IDIQ Peculiarities

The federal IDIQ structure creates a situation where the contractor will be led to distribute its fixed costs over the

expected annual workload but is at risk that the agency can stop issuing work orders as soon as it meets its minimum, leaving it in a position of not being able to recover the overhead costs to initiate the project and mobilize to perform the first task order. In the federal sector this is further complicated by the inclusion of the FAR’s Termination for Convenience clause, which literally permits the government to cancel the contract without ordering the minimum amount.

To understand the dynamics of this environment the following hypothetical example is provided. A construction contractor wins a federal IDIQ with a base of two years and three one-year options to extend. The contract has a guaranteed minimum of \$5,000, a not-to-exceed value of \$5 million, and an expected annual work load of \$1 million. Thus, the contractor has an expectation of an annual revenue stream of \$1 million, but could legally be given no work during the base period save the \$5,000 minimum. Indeed, the federal agency could terminate the contract for convenience and avoid even paying the minimum. Certainly, this is the worst possible case scenario and will occur rarely, and when it does there is usually good cause for the termination from the government’s perspective. It is important to note that the FAR termination clause is not required by state laws, although many states have this in their standard form templates as a matter of course. States are also required to have a Termination for Convenience clause if federal funding is involved.

IDIQ and Contractor Performance

The final contractual difference between IDIQ and single-project contracts is a subtle incentive for the contractor to execute each work order in a manner that is satisfactory to the agency. Because of the work order structure and guaranteed minimum, the agency can literally cease issuing work orders to a contractor whose performance is not satisfactory, creating a constructive termination of the agreement and leaving the contractor with no effective recourse.

Many state DOTs use the first work order to satisfy the guaranteed minimum and, as a result, they are able to “test drive” a given contractor, using the work order as an opportunity to evaluate its performance. If the performance proves to be unsatisfactory, the agency is not “stuck” in a

contractual relationship where it must resort to some form of legal action to terminate. In IDIQ, the agency merely ceases to issue work orders to that particular contractor; an advantage to the agency and one with which IDIQ contractors are well aware.

The second incentive feature in IDIQ is the option to extend the contract without further competition. One author found that “a contractor’s greatest incentive is the promise of future work” (Strang 2002). One IDIQ contractor found that its company viewed IDIQs as an attractive revenue stream to fill in the fluctuations within the typical construction market (Centennial Contractors 2004). The contractor also valued IDIQs as a mechanism to keep its most efficient employees on staff, because if the contractor had a run of bad fortune bidding normal projects it could reassign its top staff to the IDIQ for a certain period while continuing to seek new major construction projects.

INDEFINITE DELIVERY/INDEFINITE QUANTITY CASE LAW ANALYSIS

IDIQ is relatively new to highway construction and, as such, very little information was found in the record at the state level. The federal government has been using IDIQ for more than three decades and hence the legal literature was rich with information relevant to this synthesis. A Westlaw (Westlaw 2014) search on the term “IDIQ” turned up only federal cases, as was also the case when there was a search of Lexis/Nexis (Lexis/Nexis 2014). Therefore, the material reported in this chapter comes from a formal content analysis on 76 federal IDIQ cases. To provide some insight into the use of design IDIQs and, even though this is not the focus of this synthesis, this content analysis includes four federal design IDIQ cases (A/E in FAR nomenclature). One state-level case that involved FDOT was found; however, it was not an IDIQ contract and was dropped. Tables 4 and 5 present summaries of all non-design and design professional IDIQ legal case

TABLE 4
SUMMARY OF LEGAL CASE LAW EXAMPLES—NON-DESIGN IDIQs

Agency	No. Cases	Agency	No. Cases	Agency	No. Cases
Dept. of Treasury	2	National Aeronautics and Space Administration	3	Central Intelligence Agency	1
Dept. of Veterans Affairs	5	U.S. Coast Guard	1	District of Columbia Child and Family Services Agency	1
Environmental Protection Agency	1	U.S. Army Director of Public Works	7	Dept. of Human Services	1
Federal Emergency Management Agency	1	U.S. Army Corps of Engineers	6	Defense Intelligence Agency	1
Federal Aviation Administration	1	U.S. Air Force	6	Defense Information Systems Agency	1
General Services Administration	6	U.S. Marine Corps	1	Dept. of Housing and Urban Development	1
Joint Contracting Command for Iraq and Afghanistan	1	U.S. Naval Facilities Engineering Command	14	U.S. Marshals Service	1
City of Pontiac	1	Other agencies	9		

TABLE 5
SUMMARY OF LEGAL CASE LAW EXAMPLES—DESIGN IDIQs

Case	Legal Basis	Issue	Agency	Decision/Court
Exelis Systems v. U.S.	Award Fatally Flawed	Agency evaluation of proposed staffing plan flawed	Department of State (DOS)	Partially Sustained—Partially Denied/Comptroller General
IMS Engineers—Architects, P.C. v. U.S.	Breach of Contract	Termination for convenience without exercising final 2 year options	U.S. Army Corps of Engineers (USACE)	Denied/Armed Services Board of Contract Appeals
Lucent Technologies World Services v. U.S.	Award Fatally Flawed	Agency determined conflict of interest	U.S. Army Director of Public Works (DPW)	Denied/Comptroller General
McKissack-URS Partners v. U.S.	Award Fatally Flawed	Agency failed to debrief before phase 2 proposals were due	Department of Labor (DOL)	Denied/Comptroller General

law examples, respectively, analyzed in this synthesis report. More detailed information and a further analysis of these case examples is contained in Appendix C.

SUMMARY

This chapter found that the federal government's experience employing IDIQ contracts has resulted in a defensible contract form and associated procurement and administration processes as evidenced by the finding that the majority of IDIQ

protests and claims are settled in favor of the agency. Thus, the federal form can furnish a starting point from which a DOT can tailor it to the state's statutes.

Concerns found in the literature regarding increased protest risk resulting from potential restriction of competition were proved to be unfounded because only five of 76 protests were based on a violation of the Competition in Contracting Act (CICA). In addition, all five claims were denied. Therefore, the full and open competition that occurs in the pre-award phase appears to be viewed by industry as sufficient.

INDEFINITE DELIVERY/INDEFINITE QUANTITY PROCUREMENT POLICIES, PROCEDURES, AND PROGRAMS

INTRODUCTION

Federal Supply Schedules were the first version of IDIQ contracts and appeared with the creation of the General Services Administration (GSA) by the Federal Property and Administrative Service Act of 1949. They were part of a program designed to accelerate the acquisition of commonly used supplies and services for federal agencies (U.S. Congress 1951; GAO 1979; Matchette and Danis 1995). The notion of using IDIQ contracting to compress project delivery periods and facilitate procurement procedures is still shared by federal and state agencies. Indeed, recommendations made by practitioners and regulatory agencies encourage public owners to limit proposal submittal requirements to a minimum and implement streamlined contracting techniques such as the oral proposals and work orders (OFPP 1997; Dunston and Reed 2000; Sandner and Snyder 2001; FAR 2005). However, strict and inflexible statutes and regulations appear to hinder an optimal use of IDIQ contracting by requiring large amounts of contract documents and complex procurement procedures (Thornton 2002).

“Oral presentations of proposals can be a useful tool in achieving a more timely and cost-efficient source selection.”
(AFMC 1999)

State DOTs are recognizing IDIQ contracting as an opportunity to improve their procurement procedures, mainly by consolidating the procurement of a number of similar projects into a single transaction and offering flexibility in delivery scheduling (Rueda and Gransberg 2014b). This chapter analyzes policies, principles, and guidelines currently being followed by state transportation agencies to implement IDIQ contracting for transportation projects. The findings presented in this chapter are the result of a comprehensive assessment of all the information collected through the literature search, the IDIQ document content analysis, and the surveys and interviews with state DOTs and industry professionals.

INDEFINITE DELIVERY/INDEFINITE QUANTITY POLICIES AND PROCEDURES

A content analysis was conducted using the protocol proposed by Neuendorf (2002) on 65 IDIQ contract documents from federal, state, and local agencies, including IDIQ

documents from 32 state DOTs. The documents analyzed included solicitation documents RFP, RFQ, Invitation for Bids (IFB), and agency policy documents (i.e., implementation guidebooks and manuals of procedures), official reports, work plans, and other written information related to IDIQ practices of state transportation agencies. Figure 9 shows the distribution of these documents among state DOTs. This figure does not include documents from federal or local agencies.

Information related to IDIQ practices currently in use was also collected through survey responses from 43 state DOTs (an 84% response rate), and the comprehensive analysis of seven case examples from six state DOTs and the FHWA’s CFLHD. All information collected was combined, as appropriate, in an attempt to define an IDIQ contracting profile for each DOT, to provide a better understanding of the state of practice of this alternative contracting approach in different state transportation agencies across the country. Table 6 summarizes some general policies and procurement techniques observed in this study and presents the frequency of occurrence of these characteristics among the 41 DOTs that use IDIQ techniques.

Table 6 includes state transportation agencies that either responded to the survey as IDIQ users or did not respond to the survey but are known users (see Figure 5 in chapter one). Although IDIQ contracts for design services are not included in the synthesis scope, they are included in Table 6 to highlight the wide use of this practice among state DOTs and emphasize the need for future research on this matter. This table reveals the level of diversification of IDIQ practices within the transportation industry. Although this contracting approach is more often used for the acquisition of A/E services, it also appears to be widely used to procure minor construction and maintenance services for DBB contracts. Some of the policies and procedures presented in this table and other important aspects related to IDIQ contracting are explained in detail throughout this chapter, and those specifically related to design services will be briefly discussed at the end of the chapter.

Project Delivery Methods in IDIQ Contracting

As can be seen in Figure 10, the use of IDIQ techniques with DBB, DB, or CMGC does not alter the conventional contractual/communication structure of these delivery meth-

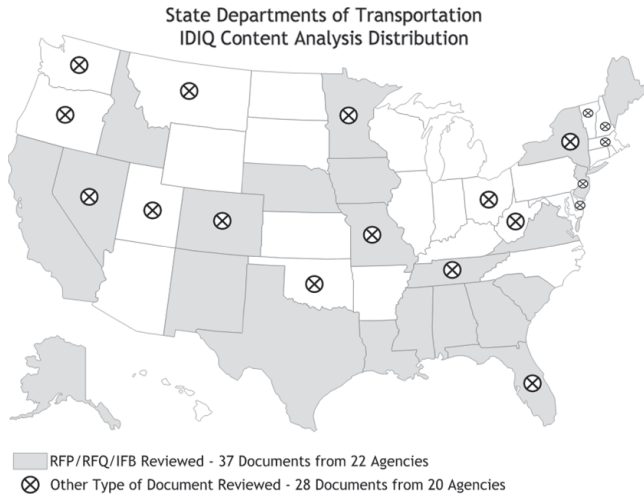


FIGURE 9 IDIQ document content analysis distribution.

ods (see Figures 1–3 in chapter one). It does mean that in DBB-IDIQ the owner remains responsible for finishing the design in order for the contractor to proceed with construction; in DB-IDIQ a single firm is selected to furnish most of the design services and complete construction activities for each project (each work order); and in CMGC-IDIQ a firm is engaged to provide input during the design of each project to subsequently perform as the general contractor during the construction phase. Because final designs and construction services in IDIQ contracts are usually furnished on a work order basis, and given that guidelines stated by these delivery methods are primarily intended to regulate these two project phases, the selection of any of these contracting meth-

ods does not have a major impact on those preconstruction activities performed before awarding (Figure 10). Thus, the types of contracts mentioned here must be understood as a group of individual DBB, DB, or CMGC projects under a single IDIQ contract.

Regardless of the delivery method used and the number of awardees involved in an IDIQ contract, planning and design activities must be undertaken in two different phases as shown in Figure 10. The owner must carry out some initial design activities (included in the “Scope of Contract” phase illustrated in Figure 10) in order to develop the contract documents needed to advertise the contract without knowing the specific details of each work order to be issued. The level of completeness of this initial design is given by the required content of bid packages to be submitted by interested contractors. As observed in this study, IDIQ contracts with straightforward scopes and uniform work orders (high similarity between work orders) tend to result in more initial design detail in the solicitation documents.

Once the contract is awarded, to issue the first work order the owner proceeds with a supplementary preconstruction phase intended to complete planning and design activities at the work order level. As shown in the “After Contract Award” column of Figure 10, the role of each contract participant during this second preconstruction phase will vary by the selected project delivery method. In a DBB-IDIQ, the owner will develop the final design using in-house design staff or external design consultants for each work order. Similarly, in a CMGC-IDIQ, the final design will be completed with the assistance of the CMGC. There are some

TABLE 6
IDIQ POLICIES AND PROCEDURES

Policies and Procedures	Answers and Observations	Frequency of Observations (out of 41)	Frequency %
Delivery Method Used for IDIQ Contracts	DBB	17	51
	DB	5	12
	CMGC	4	10
Type of Work	Design	41	93
	Construction	24	59
	Maintenance	32	78
Average Number of IDIQ Contracts Awarded per Year	1–2	3	7
	3–5	5	12
	6–10	3	7
	>10	15	37
Classification by Location(s)	City-wide	1	2
	County-wide	5	12
	District-wide	18	44
	State-wide	19	46
	Other	4	10
Use of Multiple Award IDIQ Contracts	Yes	17	41
	No	9	22
	Unknown	15	37
Use of IDIQ Contracts in Emergency Situations	Yes	13	32
	Unknown	28	68

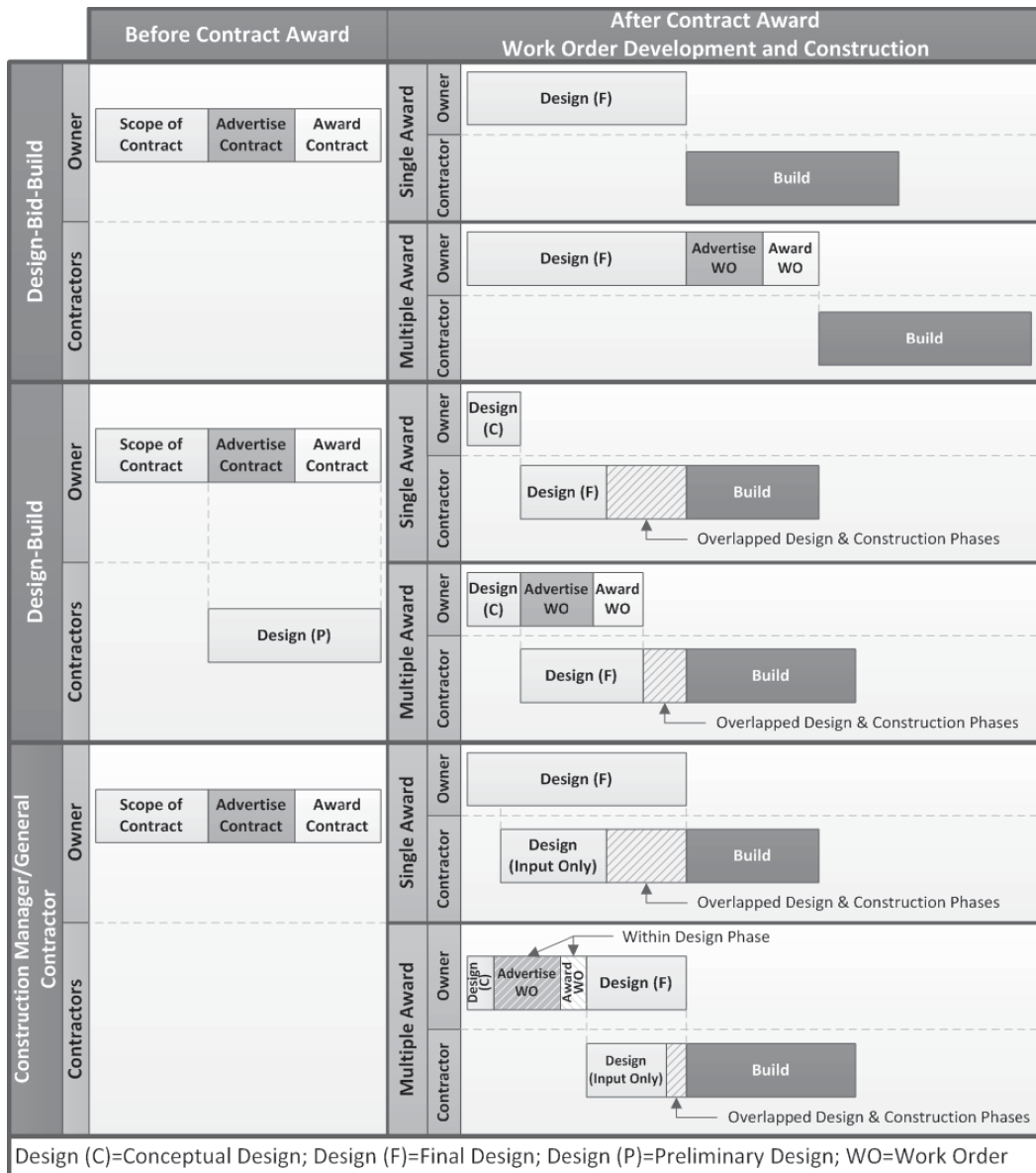


FIGURE 10 Project life cycle for each delivery method.

instances where the owner must first complete an initial portion of these design activities, referred to in Figure 10 as *conceptual design*. It is to be detailed enough to efficiently communicate the scope of each work order under two specific situations: to allow the awarded contractor in a single award DB-IDIQ to continue with the final design, or to advertise and award each work order in multiple award DB-IDIQ or CMGC-IDIQ contracts.

The DBB project life cycle illustrated in Figure 10 shows commonly used IDIQ practices for the procurement of construction and maintenance services. Conversely, the DB-IDIQ model presented in the figure was based on the chapter five case example completed on the FDOT’s DB Push-Button (DB-PB) contracts (FDOT 2009). These are

single award IDIQ contracts procured through one-step full and open competition procedures. They consist of selecting a design-builder by evaluating technical and price proposals for the first work order. Therefore, interested DB firms have to develop their own preliminary design based on solicitation documents.

Although no solicitation documents for DB-IDIQ contracts advertised and awarded using qualifications-based selection (QBS) procedures were obtained, the fundamentals of this practice and DB method allow the authors to infer that this would be a suitable approach when detailed information about upcoming projects cannot be provided to proposers for the development of technical proposals. In the case of DB-PB contracts, this would occur when

the agency is unable to incorporate the specific anticipated scope for the first work order into the solicitation documents.

Even though some survey participants from state DOTs reported the use of CMGC-IDIQ, access to solicitation documents from these contracts was not available. However, the structure of this contracting approach illustrated in Figure 10 was developed from the New York State DOT emergency bridge replacement IDIQ case study, which was found in *NCHRP Synthesis 438: Expedited Procurement Procedures for Emergency Construction Services* (Gransberg and Loulakis 2012) to have operated in much the same manner as a CMGC contract.

Since the use of IDIQ practices with any of these delivery methods appears to not change the fundamentals of these contracting methodologies, and despite the lack of research on this matter, the study found no reason to believe that combining IDIQ procedures alters the advantages or disadvantages commonly attributed to these delivery methods. Although the project-level impacts of each delivery method are perceived at the work order level in IDIQ, the grouping of similar projects into a single IDIQ contract allows agencies to take advantage of shorter delivery periods, greater flexibility in delivery scheduling, and other benefits provided by each alternative contracting method (Rueda and Gransberg 2014a).

Figure 11 presents the different project delivery methods in use by state transportation agencies to procure construction and maintenance services. It was found that at least two agencies, the Delaware and Maryland DOTs, have been able to use IDIQ contracting with all three delivery methods. This and because the Delaware DOT is also executing multiple award contracts, as will be shown in the next section, sug-

gests a high degree of development of IDIQ techniques by this agency.

IDIQ Advantages and Disadvantages

In an attempt to understand the motivations of state DOTs to incorporate IDIQ contracting into their procurement practices, survey participants were asked to select, from a list of options, those advantages (all that apply) that they have observed in IDIQ techniques over traditional contracting methods. Figure 12 shows responses submitted by survey participants to this question and also indicates what the majority of state DOTs consider as the most important advantage of IDIQ contracting.

Because almost all DOTs that responded to this question (24 of 25) recognized the usefulness of IDIQ contracting as a great emergency response strategy, it was clear that it is not considered as the most important factor (Figure 13). When survey participants were asked in a separate question to indicate the most important advantage observed in the implementation of IDIQ contracting by their agencies, 15 selected the acceleration of the project delivery period, followed by flexibility in delivery scheduling. The difference of the responses between these two questions is almost intuitive when considering that the ability to effectively use IDIQ contracting for emergency situations is primarily the result of the reduction of project delivery periods and the flexibility in delivery scheduling.

An overall analysis of Figures 12 and 13 reveals a wide range of benefits that different state DOTs perceive in the use of IDIQ contracting. However, it does not show the relationship between the perceived advantages and the contracting approaches adopted by these agencies. Different procurement

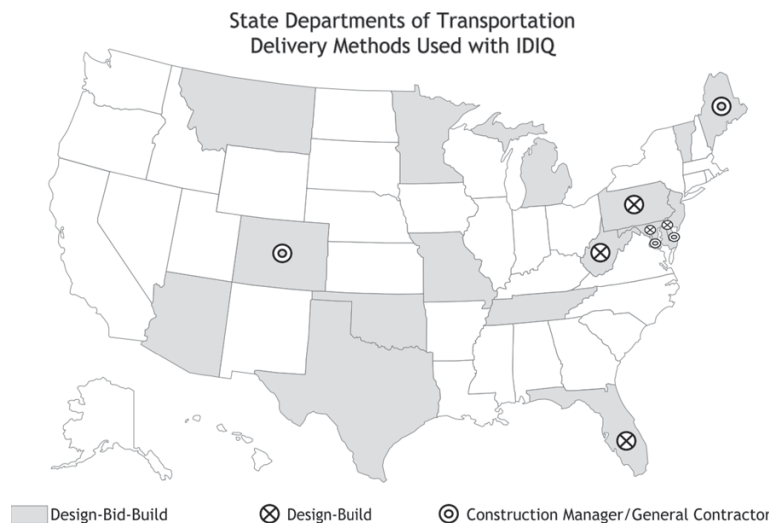


FIGURE 11 Distribution of project delivery methods used with IDIQ contracting.

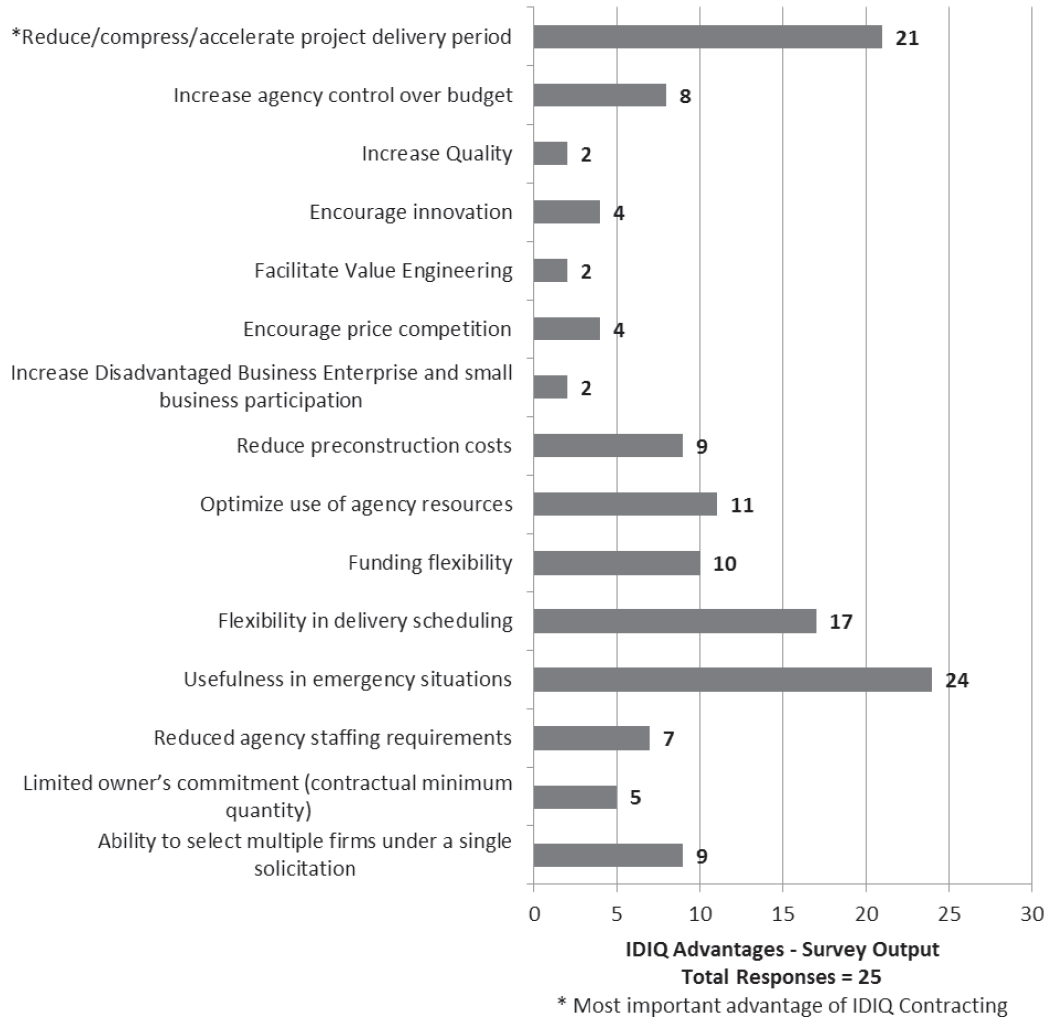


FIGURE 12 IDIQ advantages—Survey output.

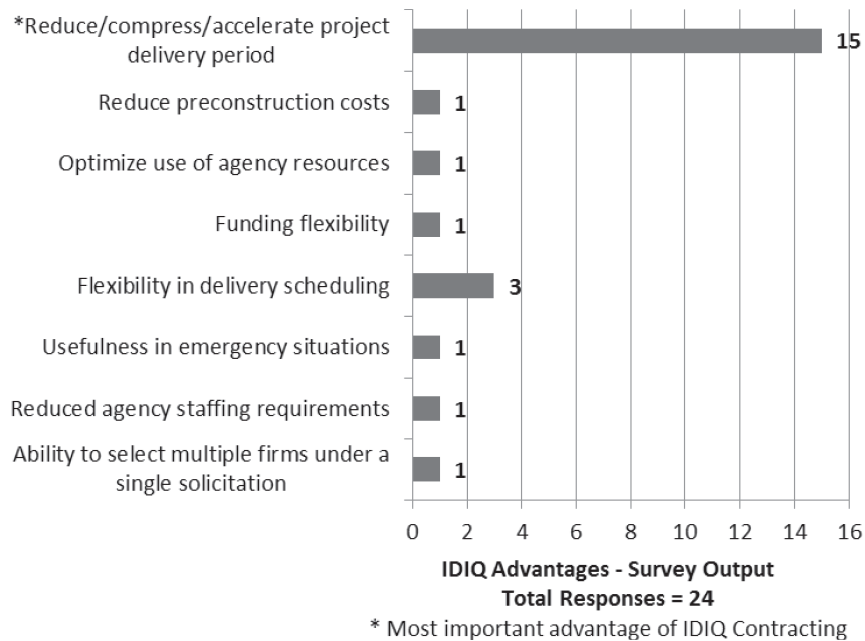


FIGURE 13 IDIQ most important advantage for DOTs.

policies and procedures may represent different sets of benefits for public owners. In an effort to find a trend that relates IDIQ benefits and IDIQ project delivery methods, the study compared the information collected from the literature review with each contracting model illustrated in Table 3 (in chapter one) and found three different levels of advantages related to these generic models. Table 7 presents the benefits attributed to each model and shows how an owner would find the same and more benefits as it moves from a single work order approach to a multiple award IDIQ contracting model. However, when comparing these three models, it found one advantage that single work order and single award contracts have over multiple award IDIQ contracts; an advantage related to the greater administrative efforts required from owners to coordinate and supervise multiple construction contractors. Therefore, agencies awarding contracts to single contractors would require fewer resources to manage these contracts.

This study found two primary disadvantages in IDIQ contracts regardless of the model used. The first disadvantage is related to the lack of knowledge and experience of state agencies and contractors to plan, execute, and administer IDIQ contracts (Farris 2002). Ironically, the second disadvantage is the result of two benefits noted in Figure 12. To obtain increased flexibility in delivery scheduling and the possibility of assigning funds on a work order basis, the owner sacrifices its ability to conduct complete planning, programming, and budgeting procedures for the entire contract. The lack of detailed estimates and schedules at the contract level restricts the use of some project management practices that have been useful in traditional contracting methods. For example, the requirement to develop a pricing scheme in single award IDIQ contracts makes it difficult to site-adapt each work order specifically over the course of the contract. Therefore, the unit prices of site-specific pay items not included in the original contract must be negotiated as they are encountered.

Institutional characteristics and policies may also limit the capabilities of this contracting approach and create a disadvantage for implementing IDIQ in that agency. However, both federal and state agencies have successfully used IDIQ procedures to deliver a series of similar large construction projects using multiple award DB work orders (Rueda and Gransberg 2014b). This report will show that the only major constraint on the use of IDIQ is for broad-scope contracts that do not lend themselves to the multiple award format.

IDIQ Types of Work

DOT survey participants were asked to indicate the types of work they usually perform with IDIQ contracts. Figures 14 and 15 show the most common types of work procured using IDIQ contracting classified in two different categories; construction and maintenance services. Survey data were augmented by information gathered from state transportation agencies that did not participate in the survey but are known IDIQ users, as well as actual IDIQ documents provided by survey participants.

Given that IDIQ contracts are usually composed of multiple work orders for similar project types, this approach is commonly used for repetitive tasks such as minor construction and maintenance and repair activities (OFPP 1997; GSA 2013). However, the size and complexity of the projects executed using this method appear to be increasing. A closer look at these practices at the federal level shows that IDIQ contracting has evolved from merely the acquisition of supplies or services through the issuance of work orders for simple products or services frequently required by federal agencies such as furniture, safety equipment and clothing, and transportation services (GAO 1979). In the early 1980s, the Department of Defense (DoD) introduced the use of IDIQ for the acquisition of construction

TABLE 7
CONTRACTING ADVANTAGES OF EACH IDIQ MODEL

Multiple Award	Single Award	Single Work Order	<ul style="list-style-type: none"> - Owner only has to deal with one contractor - Owner can keep lower inventory levels - Flexibility in quantity and delivery scheduling - Supplies and services are ordered when they are really needed - Agencies commit only for a minimum or no amount of work to be ordered - Owner can direct shipments directly to the users
			<ul style="list-style-type: none"> - Shorter project delivery period - Lower preconstruction costs - Allows contractor involvement in preconstruction activities - Fast use of year-end funding - Lower cost in future issuance of work orders - Useful contracting option during emergencies - Increase quality and timeliness of delivery
		<ul style="list-style-type: none"> - Reduce potential for graft and corruption - Highly competitive - Lower bid prices - Larger participation of small-size and disadvantaged business 	

Source: Rueda and Gransberg (2014a).

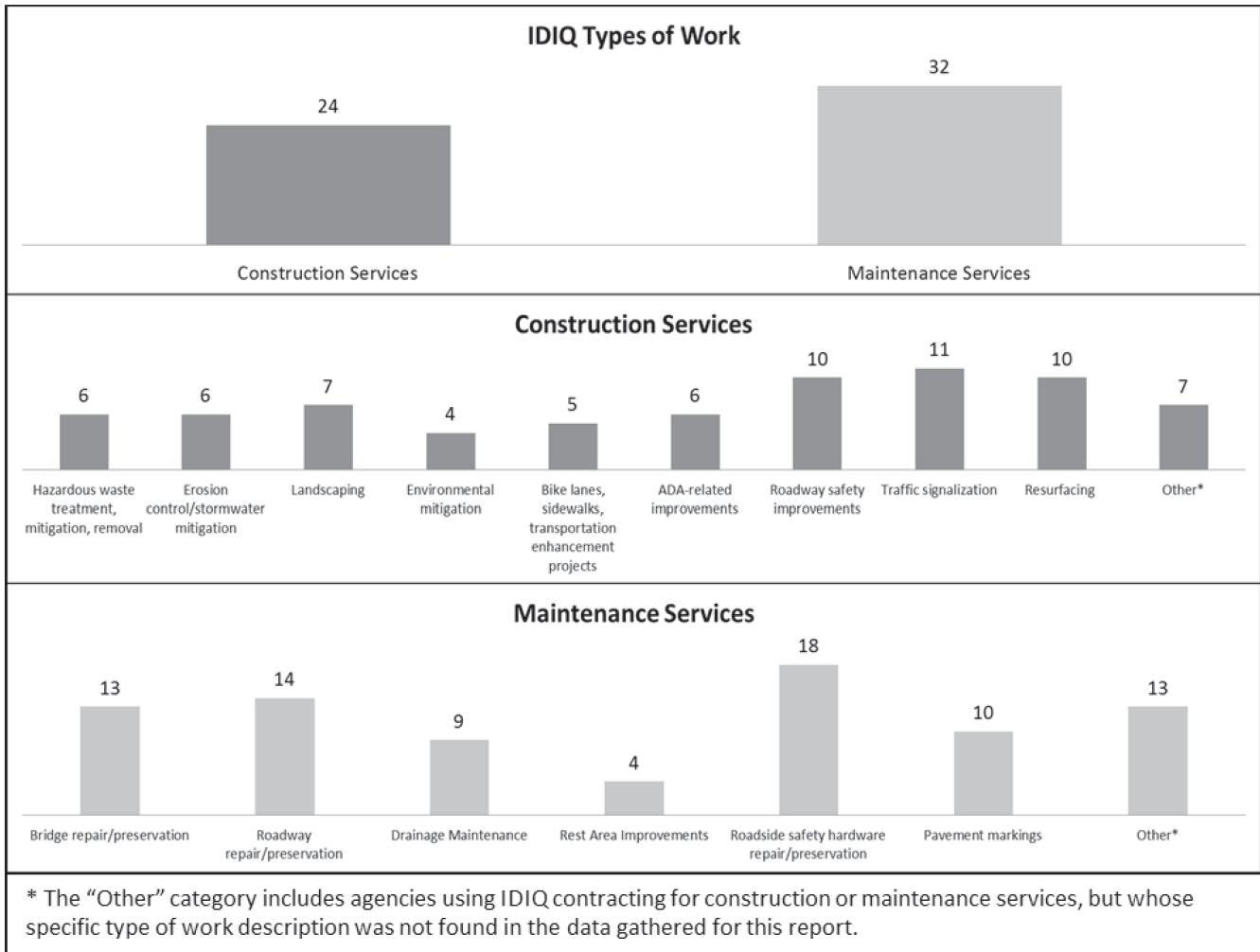


FIGURE 14 Use of IDIQ contracting by state DOTs by type of work.

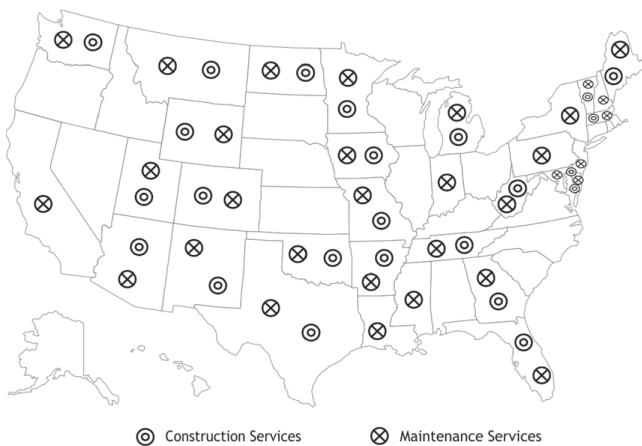


FIGURE 15 IDIQ users per type of work.

services, increasing the capabilities of this contracting approach (Farris 2002).

Currently, the DoD uses this contracting approach to support military forces worldwide with a set of three major (>\$1 billion) cost-plus-award-fee multiple award IDIQ contracts: the Logistics Civil Augmentation Program (U.S. Army Sustainment Command 2007), the Global Contingency Construction Multiple Award Contract (NAVFAC 2012), and the Air Force Contract Augmentation Program (DoD 2005) administered by the Army, Navy, and Air Force, respectively. These three programs are an example of the degree of flexibility and usefulness contained in IDIQ contracting methods. The broad scope of these multimillion dollar contracts goes from welfare and recreation activities to construction of military facilities. These multiple award IDIQ contracts are also used worldwide for a quick response to natural disasters or emergency situations generated during military operations. Taking Figure 14 with the information provided in this section, it can be concluded that IDIQ contracts may be used on virtually all types of work as their scope comprises recurring or frequently required tasks.

IDIQ contracts may be used virtually on all types of work as their scopes comprise recurring or frequently required tasks.

Table 8 shows a complete content analysis on IDIQ contract documents from 20 federal agencies. It presents different contracting elements used by these agencies and the types of IDIQ contracts on which these elements were used. The classification of contracts in Table 8 (job, task, and delivery order) corresponds to the configuration presented in Figure 5 (in chapter one) rather than the actual terminology used by these agencies in their IDIQ contracts. The table is divided into two sections; the first contains work order pricing provisions, the second is related to contract administration elements of IDIQ contracts. Table 8 is another example of the

wide range of contracting elements that can be used along with IDIQ techniques to customize this type of contract in accordance with the specific requirements of each agency and project.

Multiple Award IDIQ Contracts

The principal difference between single award and multiple award IDIQ contracts is the number of contractors selected to perform the work orders to be issued. Thus, multiple award contracts require additional provisions to describe work order placement procedures among awarded contractors. In subpart 16.5 of FAR (FAR 2005), the government compels federal agencies to “give preference to making multiple awards of indefinite-quantity [IDIQ] contracts under a single solicitation

TABLE 8
IDIQ DOCUMENT CONTENT ANALYSIS—FEDERAL AGENCIES

Agency	Type of Contract	Work Order Pricing Features					Contract Administration Features						
		Fixed Price	Unit Price	Cost-Plus	GMP	I/D	Single Award	Multiple Award	Stated Min.	Stated Max.	LD	CR	VE
Architect of the Capitol	TO	✓						✓	✓	✓			
Department of Agriculture	TO	✓					✓		✓	✓			
	JO	✓						✓	✓	✓			✓
Department of Commerce	TO	✓				✓	✓		✓	✓			
Department of Defense													
Army Contracting Command	DO	✓					✓		✓	✓			
	TO	✓		✓			✓	✓	✓	✓			
	JO	✓		✓				✓	✓	✓	✓	✓	✓
Army Corps of Engineers	DO	✓						✓					
	TO	✓					✓	✓	✓	✓			
	JO	✓		✓			✓	✓	✓	✓	✓	✓	✓
Defense Information Systems Agency	TO	✓		✓			✓	✓	✓	✓			
Department of the Air Force	DO	✓											
	TO	✓		✓		✓	✓	✓	✓	✓			
	JO	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
Naval Facilities Engineering Command	TO	✓		✓		✓	✓		✓	✓	✓		
	JO	✓		✓		✓	✓	✓	✓	✓	✓		✓
Department of Education	TO	✓					✓		✓	✓			
Department of Energy	DO	✓		✓			✓						
	TO	✓		✓		✓	✓	✓	✓	✓			
Department of Health and Human Services	TO	✓		✓		✓		✓	✓	✓			
	JO	✓						✓	✓	✓	✓		
Department of Homeland Security	DO	✓					✓	✓	✓	✓			
	TO	✓		✓		✓	✓	✓	✓	✓			
Department of State	DO	✓						✓	✓	✓			
	TO	✓					✓	✓	✓	✓			
Department of the Interior	DO							✓	✓	✓			
	JO				✓			✓	✓	✓		✓	
Department of Transportation													
Federal Highway Administration	TO	✓					✓	✓	✓	✓			
	JO	✓				✓	✓	✓	✓	✓	✓		✓
Department of Veteran Affairs	DO	✓	✓				✓		✓	✓			
	TO	✓	✓				✓	✓	✓	✓	✓		
	JO	✓					✓	✓	✓	✓	✓		✓
General Services Administration	DO	✓				✓	✓	✓	✓	✓			
	TO	✓				✓		✓	✓	✓			
International Trade Commission	DO	✓						✓	✓	✓			
	JO	✓							✓	✓	✓		✓
National Aeronautics and Space Administration	TO	✓		✓		✓	✓	✓	✓	✓			
Securities and Exchange Commission	DO	✓							✓	✓	✓		
	JO	✓							✓	✓	✓		✓

CR = Constructability Reviews; DO = Delivery Order Contract (supplies); GMP = Guaranteed Maximum Price; I/D = Incentives/Disincentive Provisions; JO = Job Order Contract (construction services); LD = Liquidated Damages; TO = Task Order Contract (services); VE = Value Engineering.
Adapted from Rueda and Gransberg (2014a).

for the same or similar supplies or services.” This preference was stated in an effort to maintain appropriate levels of price competition in federal procurement procedures (OFPP 1997); however, it does not apply to design or consulting services (FAR 2005). As mentioned in chapter one, this philosophy has not been adopted by state transportation agencies since it does not appear to fit their procurement practices or it is not allowed by many state-level procurement regulations.

Although state transportation agencies do not share the preference for multiple award IDIQ contracts stated by FAR for federally funded projects, 14 state DOT survey participants reported that they have used or are currently using this approach in at least one IDIQ contract. However, only six reported the use of this practice specifically to procure construction and maintenance projects: Colorado, Florida, Georgia, Maine, Tennessee, and Vermont. In addition, the literature review uncovered multiple award construction/maintenance IDIQ solicitation documents from four different DOTs, including two of the aforementioned (Maine and Vermont). The other two solicitation documents correspond to the California and Delaware DOTs. Thus, combining these with the survey responses, there are at least eight agencies currently using multiple award construction/maintenance IDIQ contracts.

The possibility exists that some agencies that responded positively to the use of multiple award IDIQ contracts may have mistakenly identified their prequalification programs as multiple award procedures. These types of programs were found in most of these agencies and their descriptions make them appear very similar to IDIQ contracts awarded to more than one bidder. To avoid this confusion, this study developed the following criteria that must be fully met in order to include a contract within the multiple award IDIQ category:

- Execution of work orders must be limited to a number of awardees (more than one) selected under the same solicitation.
- All awardees are to share the same contract period.
- Contract documents will include language describing work order placement procedures among all awardees.
- When awarding the contract, no contract conditions or submitted proposals can be individually negotiated by the owner with any bidder if negotiated aspects will have an impact (positive or negative) on its ability to compete or be considered for the performance of work orders under the advertised contract.

Prequalification programs implemented by these agencies usually incorporate lists of firms whose ability to furnish specific services have been previously proven. Some agencies maintain these lists to restrict the submission of proposals to prequalified contractors on specific types of projects (Oklahoma DOT 2010; UDOT 2010a). Thus, the agency has access to a pool of firms to procure some predefined services, which is also the philosophy of multiple award IDIQ

contracts. Nonetheless, prequalification programs are usually maintained for long periods of time, during which lists of prequalified firms may be modified several times (Oklahoma DOT 2010; UDOT 2010a). Moreover, in many cases this prequalification status does not involve a contractual relationship with the agency and, when it does, the agency commonly negotiates individual single award IDIQ contracts with each prequalified firm, as has been done by the Idaho Transportation Department and Nevada DOT (Nevada DOT 2008; ITD 2013). The Iowa and Massachusetts DOTs use prequalification programs to constrain participation of firms in letting processes of some or all their IDIQ contracts as do at least 12 other survey respondents.

It is important to keep a balance between the number of awardees and the expected number of work orders to be issued under a given contract.

Past studies conducted on the use of multiple award IDIQ contracts at the federal level highlight the importance of determining an appropriate number of firms to participate in this type of contracts (Thornton 2002; Rueda and Gransberg 2014a). It is important to balance the number of contractors in the multiple award pool with the expected number of work orders to be issued to ensure appropriate levels of competition and provide the contractors in the pool with a decent opportunity to perform work beyond the stated minimum, if any (OFPP 1997; Rueda 2013). The literature mentions a series of factors that agency contracting personnel might consider when determining the number of awards to be made under a single solicitation:

- Scope and complexity of projects to be executed under the contract (OFPP 1997; FAR 2005).
- Expected number and duration of work orders and their frequency (FAR 2005; Rueda 2013).
- Required resources a contractor would have to perform for the types of work described in the contract documents (FAR 2005).

Similar practices used by state transportation agencies to advertise and award single award IDIQ contracts are typically used in multiple award IDIQ contracts. An agency new to IDIQ can develop a single set of procurement procedures for both single and multiple award IDIQs, although there will be some slight differences. The primary difference between single award and multiple award IDIQ contracts was found in post-award administrative activities, which will be discussed in chapter four of this report.

INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACTS—ADVERTISING AND AWARD

In the survey used to gather data for this synthesis report, state DOTs were asked to indicate the advertising and award procedures they are using on construction and maintenance

TABLE 9
ADVERTISING AND AWARD PROCEDURES FOR CONSTRUCTION/MAINTENANCE SERVICES

Advertising and Award Procedures	Construction	%	Maintenance	%
IFB—Low-bid contractor selection, full open competition	14	82	20	77
IFB—Low-bid contractor selection, competition restricted to prequalified entities	9	53	6	23
RFQ—One-step QBS, full open competition	2	12	3	12
RFP—One-step best-value selection, full open competition (including qualifications, technical capabilities, and price)	1	6	3	12
RFQ/RFP—Two-step full open competition	2	12	2	8
RFQ—One-step QBS, competition restricted to prequalified entities	1	6	0	0
RFP—One-step best-value selection, competition restricted to prequalified entities (including qualifications, technical capabilities, and price)	1	6	1	4
RFQ/RFP—Two-step best-value selection, competition restricted to prequalified entities	1	6	1	4
Multiple contractors selected—Low-bid contractors selection	2	12	5	19
Multiple contractors selected—QBS	1	6	2	8
Sole source	1	6	0	0
Totals	17		26	

Note: It was possible for a single agency to select more than one procedure. Thus, the numbers and percentages shown will not add up to 100%.

IDIQ contracts. These procedures comprise two different aspects; the way these agencies communicate to potential contractors their intention of awarding an IDIQ contract and the subsequent process to select the contractor that most effectively fits the requirements stated in the solicitation documents. Table 9 shows the responses to this question complemented with observations obtained from the content analysis techniques applied to IDIQ solicitation documents.

Table 9 includes the four basic advertise/award models explained here, and some variations of these models related to the use of prequalification programs and multiple award solicitations.

- *IFB—Low-bid contractor selection*: Contract is advertised through an IFB that contains guidelines for contractors to prepare and submit price proposals that will be used as the only selection criterion to award the contract (Yu and Wang 2012).
- *RFQ—One-step QBS*: The owner issues a RFQ, including all guidelines for contractors to prepare and submit statements of qualifications showing their experience and demonstrating their ability to perform all types of work described in the RFQ. These statements are evaluated in accordance with processes described in the solicitation documents and used to select the most qualified contractor (Lo and Yan 2003). This model does not involve price competition.
- *RFP—One-step best-value selection*: This model can be seen as a combination of the two models defined previously. The contract is advertised by the owner issuing a RFP that contains guidelines for interested contractors to prepare and submit bid packages. These packages include a price proposal, a technical proposal, and

additional documents and information to certify that the contractor has the required and desired (if any) experience and qualifications to perform all types of work described in the RFP. These packages are evaluated in accordance with processes described in the solicitation documents and used to select the most advantageous offer to the owner using price, technical capabilities, qualifications, and other possible factors as selection criteria (Gransberg and Ellicott 1997).

- *RFQ/RFP—Two-step best-value selection*: Contract is advertised in two steps. First, the owner issues a RFQ that contains guidelines for contractors to prepare and submit statements of qualifications. These statements are used to develop a short list, with the most highly qualified contractors in accordance with processes described in the RFQ. The second step of this selection model consists of the preparation of a RFP, issued only to shortlisted contractors, outlining the requirements for preparation and submission of technical and price proposals used to identify the most valuable offer to the owner (MnDOT 2011). Basically, this model applies the same criteria used in a one-step best-value selection approach, but evaluated in two different stages.

It is important to understand that the terminology contained in this section may not agree with that in use by any given agency. For example, an Iowa DOT document called an RFP was actually intended to advertise an IDIQ contract using a one-step QBS process and thus was an RFQ based on the definitions standardized for this synthesis report (Iowa DOT 2011). In addition, terms such as Notice to Bidders and Notice to Contractors are being used by the Maine and Minnesota DOTs, respectively, to refer to the IFB mentioned in this report (Maine DOT 2011; MnDOT 2013a). The terminology used in

this section is used throughout the synthesis report and is based on the definitions presented earlier. The number of responses shown in Table 9 for each selection approach indicates a great deal of diversification in the way transportation agencies address this issue. It is also possible to identify different trends and common practices that state DOTs are adopting for different types of projects. These practices are easier to identify in Figure 16, which presents the same data but arranged in a less specific manner. Responses and observations in the figure are classified based on the four general selection models.

It can be concluded from Figure 16 that simpler low-bid procedures appear to fit better with construction and maintenance services. This was a trend expected by the authors. As mentioned before, the implementation of IDIQ techniques does not alter the traditional structure of delivery methods used for transportation projects. Therefore, there was no reason to believe that IDIQ techniques represent a change in the use traditionally given to these advertise/award methods. Taking into consideration that IDIQ contracts are used primarily to perform recurrent similar projects, this contracting approach fits better for minor construction and/or maintenance tasks rather than large and complex highway construction projects. For instance, it is not expected that a state DOT awards multiple large corridor projects in a one- or two-year period. Consequently, simplified processes provided by low-bid contracting selection strategies work most effectively with minor construction or maintenance projects. It makes no sense to conduct complex and expensive selection procedures for simple low-risk projects.

That being said, it does not mean to imply that this contracting approach cannot be used for large and complex projects. IDIQ techniques can be used in virtually all types of projects and may even comprise very broad scopes as they represent a recurrent need for the contracting agency. It simply requires the adjustment of contracting procedures to incorporate risk

management strategies to counteract the higher level of risk usually perceived by owners in large projects (Morris and Willson 2006; Touran and Lopez 2006). For example, the owner may consider the use of multiple award IDIQ contracts and carefully determine an appropriate number of awardees in order to mitigate the risk of contractor default and maintain good levels of competition. The owner may also decide to use a more exhausting contractor selection procedure such as a best-value method, to ensure a fair quality of the work to be provided by the contractor for a reasonable price.

In addition to the contractor selection models described earlier and their alternative approaches using prequalification programs and multiple award techniques (see Table 9), the survey included another model that is used with IDIQ contracts by at least one agency (Colorado DOT) for construction services. This model is referred to in Table 9 as *sole source*. Sole source contracting, as defined by some authors, is a practice used by owners to procure very specialized work directly from a contractor, without going into a full-blown public competitive procurement, when there appears to be the only one source with the experience and technical capabilities to furnish the necessary services (Hessing 2008).

Although it may be inferred that sole source contracting practices are reserved for projects and services that are required infrequently or during emergencies, this is not the case for the Colorado DOT. Because they use sole source negotiated IDIQ suggests that the specialized work obtained under these contracts are recurrent requirements during the contract period. In that case, a single award IDIQ contract becomes the tool for the acquisition of these services. By limiting the procurement to a single transaction, a major issue highlighted by Hessing (2008), the unavoidable delays generated by the complicated administrative procedures required to obtain approval to execute this type of non-competitive contracts is overcome. Some agencies must go through time-consuming procedures

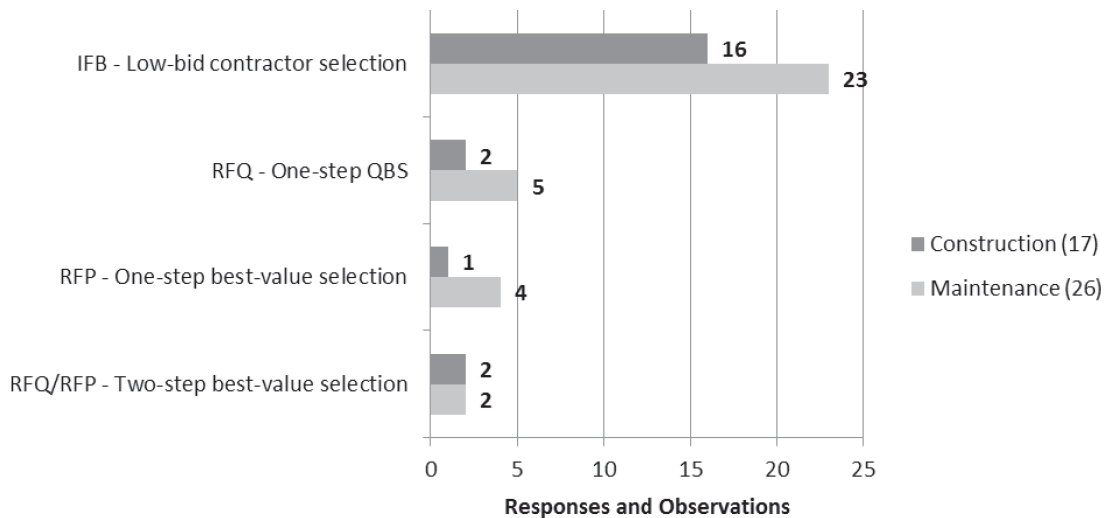


FIGURE 16 Advertising and award procedures for construction/maintenance services.

TABLE 10
MULTIPLE AWARD CONSTRUCTION/MANAGEMENT IDIQ CONTRACTS

Agency	Project Description	Contract Duration (years)	Advertise/Award	Number of Awardees
Caltrans	Identify and remove underground hazardous material/waste and tanks	3	IFB—One-step low-bid	Up to 6
DelDOT	Landscaping	1	IFB—One-step low-bid	All responsive and responsible bidders
Maine DOT	Paving construction and maintenance services	1	IFB—One-step low-bid	All responsive and responsible bidders
VTrans	Bridge and pavement preventive maintenance	1	RFP—One-step best-value	All responsive and responsible bidders

to obtain government approval under these situations since “they must prove beyond any doubt that the individual contractor is uniquely qualified to perform the work” (Hessing 2008). Therefore, the Colorado DOT anticipates the recurrent need for the specialized services and establishes a single ongoing agreement, requiring a single approval that will cover multiple projects. These agreements typically are programmed over a convenient period of time and structured as single award IDIQ contracts.

Multiple Award IDIQ Contract Advertise/Award Processes

This section discusses different advertise/award approaches in use by state DOTs to procure multiple award construction/maintenance IDIQ contracts. The content of multiple award IDIQ contract documents was analyzed and is shown in Table 10. This table presents some general characteristics of these contracts: scope description, contract duration, advertise/award method, and number of awardees. It is important to note that the last two features correspond to procedures followed to award the contract rather than those used to select the contractor to perform each task order. Work order award methods will be discussed in chapter four of this report.

Low-Bid Multiple Award IDIQ

The low-bid multiple award IDIQ systems developed by the California, Delaware, and Maine DOTs are similar. Basically, the agency prepares the IFB, including all pay items to be priced by interested contractors. Sealed bids are submitted,

and the agency reviews all bid packages on a pass/fail basis for responsiveness. Finally, the contract is awarded to multiple contractors (MaineDOT 2011; DelDOT 2013; Caltrans 2014). Caltrans specifies a maximum number of bidders to be selected in the solicitation documents, whereas the Delaware and Maine DOTs form the multiple award contractor pool with all responsive and responsible bidders without limit. An unlimited number of awardees do not pose a problem because no minimum amount is guaranteed to each contractor under the IDIQ contract. In essence, the contractor pool is merely a form of prequalification and, as such, the agency is not obligated to award work orders to all awardees during the contract period.

Unlike federal multiple award IDIQ contracts, in which the selected contractors are required to bid updated unit prices on each new work order, the bid packages submitted by successful contractors in these three state low-bid contracts are intended to be used throughout the contract period to price all work orders. Therefore, work orders are assigned in accordance with the lowest cost obtained by applying bid unit prices on the specific pay items and quantities required for each project. Post-award administration practices, including work order placement procedures, are discussed in detail in chapter four.

Best-Value Multiple Award IDIQ

Figure 17 illustrates the pre-award phase of the federal multiple award approach mentioned earlier. It was obtained from an IDIQ construction case study contract executed by

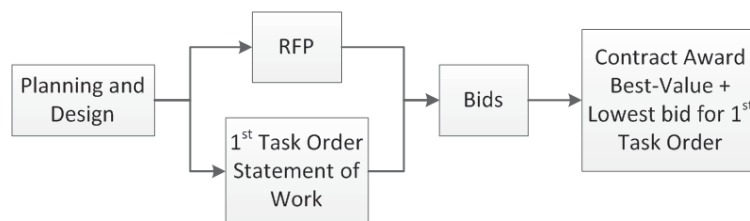


FIGURE 17 Federal multiple award IDIQ contract—Pre-award phase.

the CFLHD and analyzed in chapter five and Appendix D, but presented in this section of the report to compare federal and state multiple award practices. Figure 17 shows a one-step, best-value selection process occurring simultaneously with the selection of the low bidder for the first task order.

Basically, CFLHD releases the IDIQ RFP along with a statement of work for the first work order (termed a task order in the federal parlance). Interested construction contractors are required to submit documents that detail their experience and qualifications, as well as a price proposal for the first task order. Once all bids have been received, the agency proceeds to evaluate each bidder based on a number of factors such as previous experience, logistic skills, qualifications, financial capability, and price proposals. From this evaluation, CFLHD awards the contract to those bidders whose proposals appear to provide the highest overall value for the agency; usually three contractors. Along with the announcement of the successful bidders, CFLHD announces the contractor selected to perform the first task order, which corresponds to the lowest price proposal (CFLHD 2012). Further explanation and analysis of the contractor selection procedures adopted by CFLHD are presented in Appendix D.

There are two main factors that make this federal IDIQ contacting methodology different from those in use by state DOTs for multiple award IDIQ contracts. The first is advertising the contract along with a statement of work for the first work order, and the second is submission of unit prices for the first work order. Advertising the first work order simultaneously with the RFP allows the agency to use the specifications and requirements of the first project to determine the technical capabilities of the contractor, which together with the price proposal allow CFLHD to conduct a complete best-value selection process.

By advertising the contract along with the first work order, the owner is able to conduct a complete best-value selection process.

As mentioned previously in this chapter, the same practice is used in single award DB-PB contracts awarded by FDOT. A closer look at these two contracts may confirm that best-value techniques are better suited for large-project IDIQs. Although the most costly contract in Table 10 is the one from Caltrans with a maximum contract amount of \$1.5 million, the CFLHD and FDOT contracts had maximum values of \$35 million and \$20 million, respectively (FDOT 2009; CFLHD 2012). In conclusion, best-value contractor selection is being used as a risk mitigation strategy for large IDIQ contracts. To do this, agencies will need to be willing to invest the effort to fully develop the first work order's design before awarding the contract.

Another practice worthy of mention and not shown in Table 10 is one used by the Maine and Vermont DOTs. Contractors are allowed to bid different unit prices for different

locations listed in the solicitation documents. Contractors are not required to bid all locations, and there is no limit on the number of contractors selected to compete for work orders in the same location. The unit prices contained in the bid are used to compensate contractors for all work performed under any work order. The flexibility provided by this practice allows contractors to prepare price proposals considering costs that are highly related to the location of the job site. This methodology could become a valuable tool to address the issue of pricing mobilization expenses, which will be discussed later in this report. Indeed, it may provide a similar benefit if used in single award IDIQ contracts as well.

PROPOSAL SUBMITTAL REQUIREMENTS

During the literature review, many sources highlighted the importance of keeping proposal submittal requirements to a minimum. Some of the strategies proposed by these sources include the use of oral presentations to shorten written proposals, page limitations for submittal requirements that must remain in a written manner, and protocols that create an interactive solicitation environment and improve the communication between owners and contractors (OFPP 1997; Dunston 2000; Sandner and Snyder 2001; GSA 2005). The use of oral solicitation procedures was not found in any of the contract documents reviewed; however, it was found that at least eight state DOTs include a page limit for specific parts of the proposal or for the entire document.

Figure 18 shows the frequency of observations of different solicitation requirements found during the IDIQ document content analysis. These observations are classified by type of work and correspond to 16 IDIQ contracts awarded by 14 different state DOTs.

Figure 18 shows that IDIQ construction and maintenance contracts usually follow simpler solicitation procedures, a finding that is based on the number of different components that make up the proposals rather than the effort or cost that it would require for the contractors to prepare bid packages. Depending on the project complexity and technical content, the preparation of price proposals for construction or maintenance activities can be an expensive and exhausting process. However, minimizing the number of selection factors greatly facilitates the owner's required effort to evaluate the proposals and make the selection decision (Gransberg and Ellicott 1997; Lo and Yan 2009). It also allows agencies to save time and money on selection procedures. Thus, the number of proposal submittal requirements does not merely reflect the contractors' level of effort to prepare proposals but rather the effort and time required of the owner to review them.

The number of proposal submittal requirements does not merely reflect the contractors' level of effort to prepare proposals but rather the effort and time required of the owner to review it.

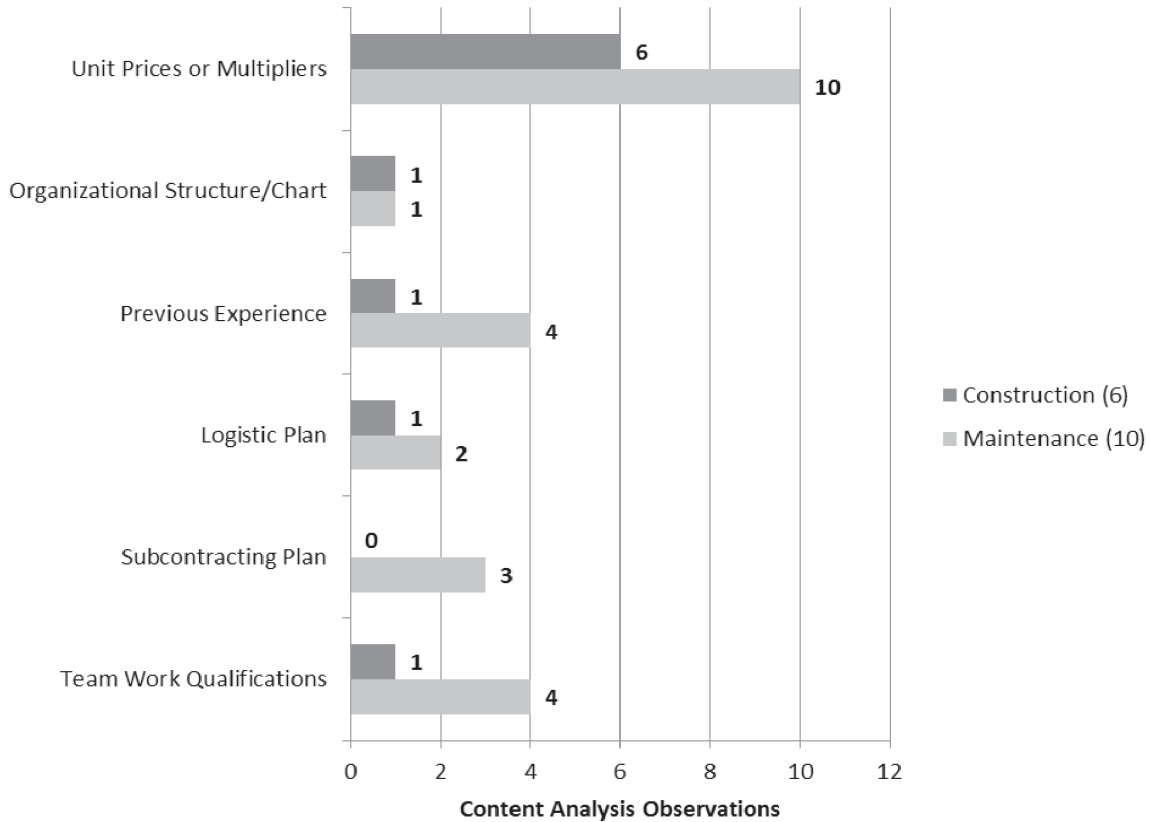


FIGURE 18 IDIQ proposal submittal requirements for construction/maintenance services.

Contractor selection procedures for construction and maintenance projects usually focus on price proposals; therefore, unit prices for pay items listed in the IFB or RFP compose the principal component of proposals. The only construction contract in the figure that includes in the proposal submittal requirements factors other than price was the unusually large single award DB-PB contract awarded by FDOT. To determine the technical and financial capability of proposers required for the agency to conduct a best-value selection procedure, FDOT requires the submission of a larger number of requirements that demand the expenditure of more time and money for their revision. However, it allows the agency to manage the risk of awarding larger and longer contracts, minimizing the number of procurement actions on a single contract (Rueda and Gransberg 2014b). It can be seen in the first work order issued under this contract, which actually contained 11 different projects for a total cost of \$12.5 million (FDOT 2009).

DETERMINATION OF PAY ITEMS AND BID QUANTITIES

When advertising a traditional low-bid non-IDIQ contract, the owner usually includes in the solicitation documents a list of pay items to be priced by interested contractors based on bid quantities also provided by the owner. The bid quantities are estimated by the agency in accordance with completed project designs. Therefore, they are expected to be

a good approximation of the actual amount of work to be performed by the successful contractor. In theory, extending the bid quantities with the competing contractor’s unit prices the owner can confidently select the contractor that will represent the lowest cost for the project. It is assuming that the project will be delivered on time, no significant change orders will be issued by the owner, and the final product will have the expected quality. These assumptions have been widely questioned in project management literature (Abdelrahman et al. 2008; Lo and Yan 2009). However, they are ubiquitous in unit price contracts used to deliver highway construction projects.

The same assumptions apply to low-bid IDIQ contracts; nonetheless, given the typical straightforward scope of these contracts, the risk taken by owners when making these assumptions is usually not high enough to prevent them from using low-bid techniques in construction or maintenance contracts. It is suggested that future research be conducted to provide guidance for state DOTs to develop methodologies to estimate the level of risk of each IDIQ contract and set risk thresholds above which the agency considers the use of a different advertise/award approach.

The real issue that public owners face when advertising low-bid IDIQ contracts is the determination of pay items and bid quantities. The ability to accurately determine the actual

pay items required for a typical work order and estimate the associated quantities is a function of the complexity of the work contemplated to be completed over the life of the IDIQ contract. A single award IDIQ for milling and overlaying pavement could be quite simple if the agency chooses to package the work orders in amounts that are roughly equal in length; whereas, an IDIQ bridge maintenance and repair contract would demand a more extensive set of pay items and quantities of work that may not be known until the maintenance or repair work commences. Therefore, an effective practice is to develop single award IDIQs in a manner where the number of unit price pay items is minimized. This is not an issue for multiple award contracts with competitive work orders, federal MATOCs, since both pay items and their estimated quantities are advertised on a work order basis.

Another solution found in the study was the creation of a construction task catalog to be used throughout the contract period to price every work order. Survey responses and content analysis procedures have shown that this practice has been adopted by at least seven state DOTs; Florida, Missouri, New Jersey, New Mexico, New York, Pennsylvania, and West Virginia. At the federal level, DoD often selects a commercial estimating manual and then asks contractors to bid a multiplier for those prices awarding to the lowest multiplier (DAF 2014; NAVFAC 2014). A similar approach could be devised using DOT average bid tabulation results. Regardless of the approach, master pay item catalog development demands that the agency possess a high degree of awareness about the requirements inherent in the scope of the specific IDIQ contract. This procedure may become challenging when the contract comprises a very broad scope, in which case the agency would consider the possibility of using a multiple award IDIQ instead of single award.

Most IDIQ contracts reviewed in this study provide for tasks required for a given work order, but did not contain a master pay item catalog. In these cases, the agency enters into negotiations with the contractor to determine a price for those goods or services not priced in the original price proposal. The post-award negotiation of prices in a non-competitive environment, what would happen in a single award contract,

would leave the agency in a vulnerable situation by increasing the contractor’s bargaining power. The possibility of establishing unit prices to be used on an indefinite number of projects during a given period of time gives owners control of the budget. Consequently, the higher the uncertainty regarding the pay items to be required under the contract, the higher the risk for the agency of negotiating disadvantageous prices and the higher the need for considering the use of a multiple award approach (with competitive work orders) or other non-IDIQ contracting method. Figure 19 illustrates a process that state DOTs could follow to develop an appropriate pay item list. This figure does not cover procedures to establish bid quantities since they will be explained later in this section.

As will be detailed in the next section of this chapter, agencies such as the Florida, New York, and Utah DOTs use IDIQ contracting as a tool to improve their response capabilities for emergency situations (Gransberg and Loulakis 2012). They either use separate IDIQ contracts specifically intended for these situations or allow the use of active non-emergency IDIQ contracts when the scope does not deviate significantly from the work required to address a particular emergency event. In the latter case, the agency may add contingency pay items that depend on the exact nature of the emergency and ask the contractors to provide unit prices on an if-needed basis.

Another type of contingency pay item provides a strategy to obligate available year-end funding using IDIQ contracts without the need to execute and expedite the procurement process. According to the survey, the Delaware DOT has configured IDIQ contracts with this purpose in mind. In this case, the agency would award an IDIQ contract for work that is needed but perhaps is not a high enough priority to get funded; planning to issue work orders for this type of work contingent on availability of funds. An example would be an IDIQ to bring curbs and gutters at intersections into compliance with the Americans with Disabilities Act of 1990 (ADA) or to furnish and install wire rope median barriers in areas where crash experience indicates they are warranted. In both cases, these are contracts whose size can be easily adjusted to allow for quick use of these funds.

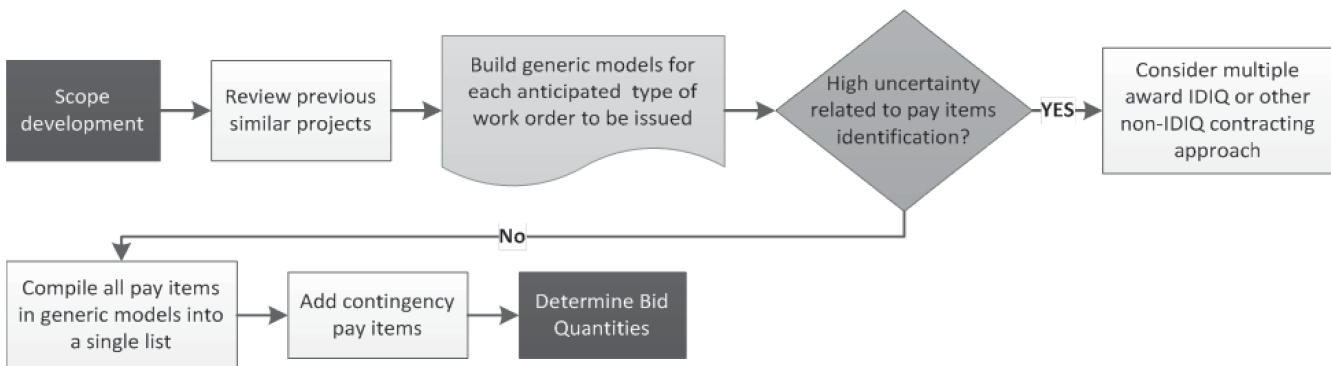


FIGURE 19 Contract pay item determination process.

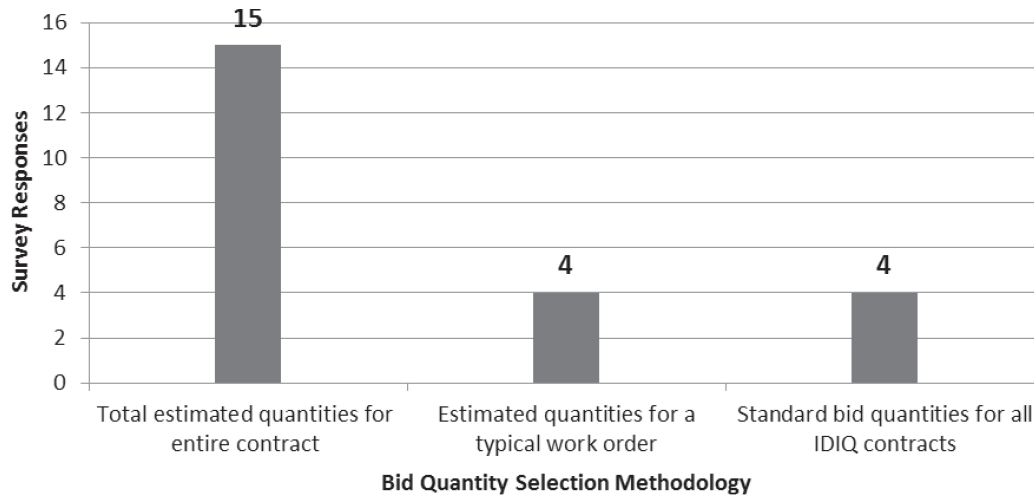


FIGURE 20 Bid quantity selection methodologies.

Having determined all tasks to be required under the contract, the owner must proceed to assign bid quantities to each pay item. The determination of pay items and bid quantities is to be made for all IDIQ solicitations that pretend to use price as a selection factor; however, good practices on this matter are particularly needed for low-bid procedures because the selection of the contractor is fully entrusted to the computation of these quantities with prices submitted by bidders.

Survey participants were asked to indicate the approach used to determine bid quantities when using unit prices in their IDIQ contracts. Figure 20 shows three principal methodologies used for this purpose and the responses given by 20 different agencies. It indicates a clear trend for using total estimated quantities in spite of the particular characteristics of this contracting approach with regard to the traditional indefinite nature of work quantities.

The use of total estimated quantities was observed on low-bid IDIQ contracts planned and advertised based on a reliable list of potential projects to be performed under different work orders (not always the case). The list might include specific projects that the agency would like to execute, but does not have the funds at the time of the IDIQ contract award. Thus, the agency awards an IDIQ contract and progressively issues individual work orders as funding becomes available.

In a traditional low-bid non-IDIQ contract bid schedules are intended to be as accurate as possible, representing actual total work quantities for the entire contract (Anderson et al. 2007). In IDIQ contracting, the owner is not obligated to purchase more than the guaranteed minimum. Even when bid quantities correspond to a total estimate for the entire contract, owners are not legally committed to these quantities. IDIQ contracts can be individually funded so financial assessments are usually made on a per project basis. In addition, in IDIQ contracts, because bid unit prices decrease as bid quantities increase must be carefully considered. Bidders know that actual quantities

will not be determined until the end of the contract period and that they are only guaranteed the contract minimum; therefore, using total bid quantities may not result in lower bid unit prices. The dynamics of the unit price bidding process will dictate the contractors' bid prices (Gransberg and Riemer 2009) and be based on what each competitor perceives as the quantities seen in a typical work order. Therefore, an effective practice when using total quantity-based pricing is to include the engineer's estimate of quantities for a typical work order and eliminate the contractors' need to assume those numbers in order to appropriately allocate its fixed cost across the bid pay items.

Ideally, the bid quantities will be in the same proportion as the quantities of anticipated actual work required throughout the life of the contract.

The inclusion of unit prices in IDIQ proposal submittal requirements is primarily for selection purposes and not to calculate the expected total cost of the contract. In an ideal situation, bid quantities will be in the same proportion as the expected actual work quantities required throughout the contract's life. It implies that owners tried to keep work order scopes as uniform as possible in order to maintain this proportion during the entire contract period to increase the probability that the low bidder is indeed the lowest final cost, regardless of the number of work orders to be issued. It confirms the previous conclusion that broad-scope contracts (e.g., those with different types of work orders) are best suited for multiple award IDIQ procedures with competitive work orders since bid quantities are established for each work order.

Broad-scope work orders that entail different types of work orders are more efficiently delivered using multiple award IDIQ procedures with competitive work orders.

TABLE 11
 BID SCHEDULE—EXAMPLE

Pay Item	Bid Quantity	Bidder 1		Bidder 2	
		Unit Price	Extension	Unit Price	Extension
Pay Item A	718,670	\$0.50	\$359,335.00	\$2.92	\$2,098,516.40
Pay Item B	1,796,675	\$1.50	\$2,695,012.50	\$0.50	\$898,337.50
Totals			\$3,054,347.50		\$2,996,853.90

Source: MnDOT (2013b)

The following example may provide a clearer idea about the importance of setting proportional quantities to compare price proposals among bidders. Table 11 shows unit prices submitted by two bidders for items A and B. These values were taken from a case example analyzed in chapter five. It corresponds to a contract executed by MnDOT. These are the two most significant pay items of this contract, representing more than 80% of the total price proposals submitted by these bidders. In this case, bid quantities are estimates of the expected total quantity of work to be performed under the contract. Since this is an IDIQ contract, it would be prudent to assume some degree of uncertainty in these quantities. For the purposes of this example, it is assumed that actual values observed upon completion of the contract could present a maximum variation of 10% from those showed in Table 11.

If this contract had been awarded based on the two items shown in Table 11, the agency would have selected Bidder 2. However, when considering the 10% uncertainty contained in these bid quantities, the sensitivity analysis found the probability that Bidder 1 would actually result in the lowest final cost was 35%. In other words, the risk that the low bidder will not eventually result in the lowest actual cost must be accepted by the agency. Figure 21 shows the result of the probabilistic analysis conducted for this example.

The previous example illustrates the importance of developing well-balanced proportional bid quantities. Any method used to determine these quantities is appropriate if it guarantees a fair proportionality in relation to the actual work to be performed throughout the contract. It is suggested that further research be undertaken to provide DOTs guidance for preparing solicitation documents for single award IDIQ contracts and master pay item lists. The urgency for conduct-

ing further research on this matter is supported by the wide use of low-bid techniques in IDIQ contracts by state DOTs. A specific aspect that could be addressed by future research projects is the development of decision-making processes to be used on a per contract basis to determine the suitability of low-bid selection techniques and the appropriate approach to establish bid quantities. Likewise, it would be worth considering the implementation of a stochastic contractor selection method for IDIQ contracts in order to mitigate the risk related to the erroneous selection of the low bid.

USE OF INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACTS FOR EMERGENCY SITUATIONS

IDIQ contracting techniques provide public owners with the capability to rapidly issue work orders without engaging in a complete procurement process, improving their capacity to respond to emergency situations such as industrial accidents and natural or environmental disasters (Jeffrey and Menches 2008). When survey participants were asked to select those advantages that they have observed in IDIQ techniques in comparison with traditionally procured contracts, 96% of those who answered this question (24 of 25) cited the usefulness of this contracting approach during emergency situations. In addition, the content analysis process found 13 IDIQ solicitation documents for two types of contracts used in emergencies:

- Single objective IDIQ contracts let specifically for the acquisition of required resources and services to mitigate short-term impact after emergency situations. In these contracts the scope of work is completely intended for the specific activities required to reduce the level of damage produced by an anticipated emergency event on a specific region, as shown in the following statement of

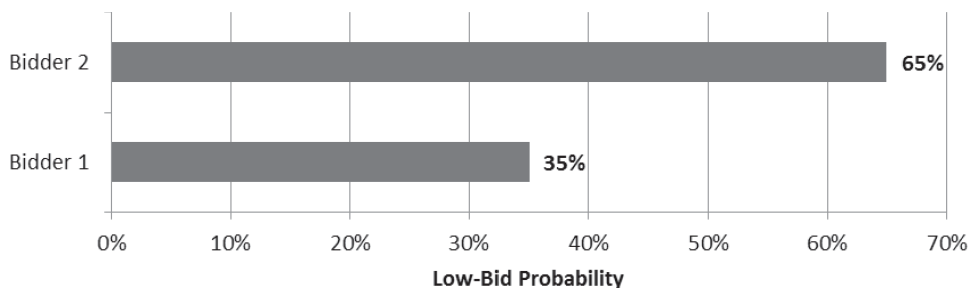


FIGURE 21 Probability that the low-bid will result in the lowest final cost—Example.

work taken from an IDIQ contract awarded by FDOT for emergency debris removal:

This statement of work describes and defines the services which are required for the execution of Natural Disaster-related emergency debris removal [. . .]. The contractor shall provide all services described herein and any other services required to complete the project. Activities include, but are not limited to, field operations, debris pickup, debris hauling and removing, debris staging and reduction, temporary debris storage site management and debris management (FDOT 2010a).

- Non-emergency IDIQ contracts authorized to be used during contingency events given their scope to respond to these situations. Usually, these contracts are designed to procure routine work, which could also be required by the agency as part of its emergency response programs. A good example of this approach is an IDIQ contract executed by the Arizona DOT for “Sign, Marker, and Delineator Installation and Maintenance” (ADOT 2013). In this contract, ADOT anticipates the issuance of two types of work orders; *Routine Task Orders*, which “involve sign cleaning and installation of delineators, markers, reference markers and mile posts” (ADOT 2013), and *Emergency Task Orders*, to be used for “work that needs immediate response in the field, such as a STOP sign knock down” (ADOT 2013). Taking into consideration the cost implications of performing work under an Emergency Task Order, the agency included some contract provisions applicable only under these circumstances and intended to compensate the contractor for expediting the work. The following is an example of these provisions:

Realizing that the cost of mobilization and equipment utilization can vary based on the size of the Task Order and the required response and completion time, two coefficients have been introduced. The first coefficient is to compensate for the additional cost of an emergency Task Order response (CE). The second coefficient is to adjust for the range in size of the Task Order (ADOT 2013).

A previous research project (Rueda 2013) found that an effective approach to handling IDIQ contracting techniques was by awarding a number of single work order or single award IDIQ contracts covering different areas that may be affected by the given type of emergency (i.e., hurricane, earthquake, etc.). Furthermore, awarding IDIQ contracts to more than one contractor in each area provides the ability to use as many contractors as required by the magnitude of the situation. The FDOT awards hurricane damage restoration contracts annually (FDOT 2010b) and the New York State DOT maintains a standing emergency bridge replacement IDIQ contract (Gransberg 2013). In other words, these agencies execute separate contracts with multiple contractors instead of single multiple award IDIQ contracts. The use of the latter was not considered for contracts specifically aimed at contingency situations in order to avoid unacceptable delays related to work orders awarding processes. However, new information collected about IDIQ practices implemented by state transportation agencies brought into

consideration an alternative methodology to be used under these critical circumstances; multiple award IDIQ contracts with non-competitive work orders as those currently used by the DOTs listed earlier in Table 10.

By requesting that contractors in multiple award IDIQs bid a single list of unit prices, as done by the California and Delaware DOTs, or different prices for different locations as done by the Maine and Vermont DOTs, the agency creates a pool of contractors that may be used in an expeditious manner based on the location of the emergency, magnitude of the event, and type of work required. This approach is similar to the single award approach mentioned in the previous paragraph. Multiple award contracts may help to reduce agency staffing requirements and improve procedures with regard to the distribution of work among awarded contractors; however, it implies equal contract periods for all awardees, restricting the ability of agencies to modify the list of contractors in the emergency response program.

INDUSTRY PERSPECTIVE

In an attempt to understand the industry perspective with regard to IDIQ contracting, a survey was prepared and distributed to transportation contractors and subcontractors. A total of 18 responses were received and analyzed. Face-to-face structured interviews were also conducted with four survey participants in order to have further discussion about some key issues. In addition, this section introduces survey responses for the same question from 24 contractors and subcontractors doing business with MnDOT (24 of 56 responded this question) obtained from previous research (Gransberg and Rueda 2014).

Based on their experiences with IDIQ contracting, survey participants were asked to rate a list of factors typically related to public contracting practices in relation to traditional contracting procedures. Table 12 contains the responses from both groups of participants; those contacted specifically for this report (henceforth referred to as AGC/ARTBA contractors) and MnDOT contractors. It must be noted that the MnDOT contractors were commenting on a new process, whereas the AGC/ARTBA contractors had extensive IDIQ experience throughout the country.

Statistically significant tests were conducted on both sets of responses to determine differences and similarities in the opinions provided by both groups of survey participants. Those factors in which the opinions were shown to be significantly similar are noted in Table 12. A significant similarity between contractors’ opinions implies that there is a high probability that the observed difference between survey responses is the result of the change (Boddy and Smith 2009). Therefore, in those factors where opinions can be considered roughly equal, the responses from MnDOT contractors can be combined with the others to draw conclusions.

TABLE 12
CONTRACTORS' PERCEPTION OF THE IMPACT OF IDIQ CONTRACTING

Factors	AGC/ARTBA (14 responses)			MnDOT (24 responses)		
	Better	No Change	Worse	Better	No Change	Worse
Schedule risk	6	4	3	2	9	13
Cost risk	5	4	5	3	4	17
Overall risk	3	7	3	1	5	18
Transparency*	2	7	5	4	9	11
Complexity	4	7	3	2	10	12
Bargaining power of suppliers*	0	4	9	4	9	10
Subcontracting plan*	1	4	8	0	11	13
Insurance requirements*	0	12	1	0	19	5
Staff management*	0	7	6	1	13	8
Ability to obtain necessary financing*	0	13	0	0	22	1
Resource conflicts with other ongoing contracts*	0	6	6	1	8	15
Ability to achieve small business participation goals (or similar)*	0	6	6	0	11	10

*Factors with statistically significant similar opinions between both groups of participants.

The information in Table 12 leads to the conclusion that the contractors' ability to obtain necessary financing to perform IDIQ contracts and staff contracting procedures are not affected by the specific characteristics of this contracting approach. In a less conclusive manner, the same could be said for contract insurance requirements as expressed by most contractors. On the other hand, it appears that the uncertainty inherent in IDIQ contracting makes it more difficult for general contractors to establish agreements with suppliers and subcontractors.

The information in this table suggests that contractors maintain an overall negative perception of IDIQ contracting. In some factors they showed a neutral position in comparison with traditional contracting methods; however, there are more aspects in which contractors expressed a negative opinion and virtually no aspects with a higher positive perception. It does not necessarily question the suitability of IDIQ contracting for the procurement of transportation projects, but indicates a need for developing and implementing effective practices to reduce the usual uncertainty and risk contained in IDIQ contracting. The face-to-face interviews, supported by the contractor survey responses, lead to the conclusion that regardless of the contractors' opinion about IDIQ or the risk perceived, contractors do not find the negative perceptions to be strong enough to prevent them from bidding IDIQ contracts. However, the contractor interviews confirmed that the perception of contract risk perception is reflected in larger contingencies as a risk mitigation strategy.

CONTRACTING PLANNING AND PROCUREMENT

Figures 22 and 23 present a generic contracting framework for IDIQ planning and procurement phases, respectively. These figures present the information and analyses contained in chapters one and three of this report and are intended for use by state DOTs when implementing or improving IDIQ

contracting practices. Figure 22 proposes three different scenarios for rejecting the use of an IDIQ contract.

1. When the scope of the contract does not constitute repetitive similar work;
2. When the scope does not meet owners' IDIQ policies or other applicable regulations; or
3. When the scope is broad and the size of the project is not enough to award multiple contractors.

DESIGN AND OTHER PROFESSIONAL ENGINEERING SERVICES

While conducting this study, a broad and unexplored contracting structure used by state transportation agencies to procure professional engineering services through IDIQ techniques was uncovered. The content analysis process found A/E IDIQ contracts in use by some DOT survey participants that did not report the use of these practices. This study found a wide range of these contracting practices and approaches that are being referred to under different names and programs that have not been formally associated with IDIQ contracting and that need to be clearly defined to determine the real state of practice of IDIQ contracting in order to procure design and other professional engineering services in the transportation industry. Consequently, this gap in knowledge has been identified as a topic for future research. Although the use of design IDIQ contracts by state DOTs is not contained in the scope of this synthesis, this section was added to the report with the purpose of providing a basis for a future research project.

Figures 14 and 24 support an observation stated earlier with regard to the versatility of IDIQ contracting. As occurs with construction and maintenance contracts, this contracting approach may be used for several types of design services.

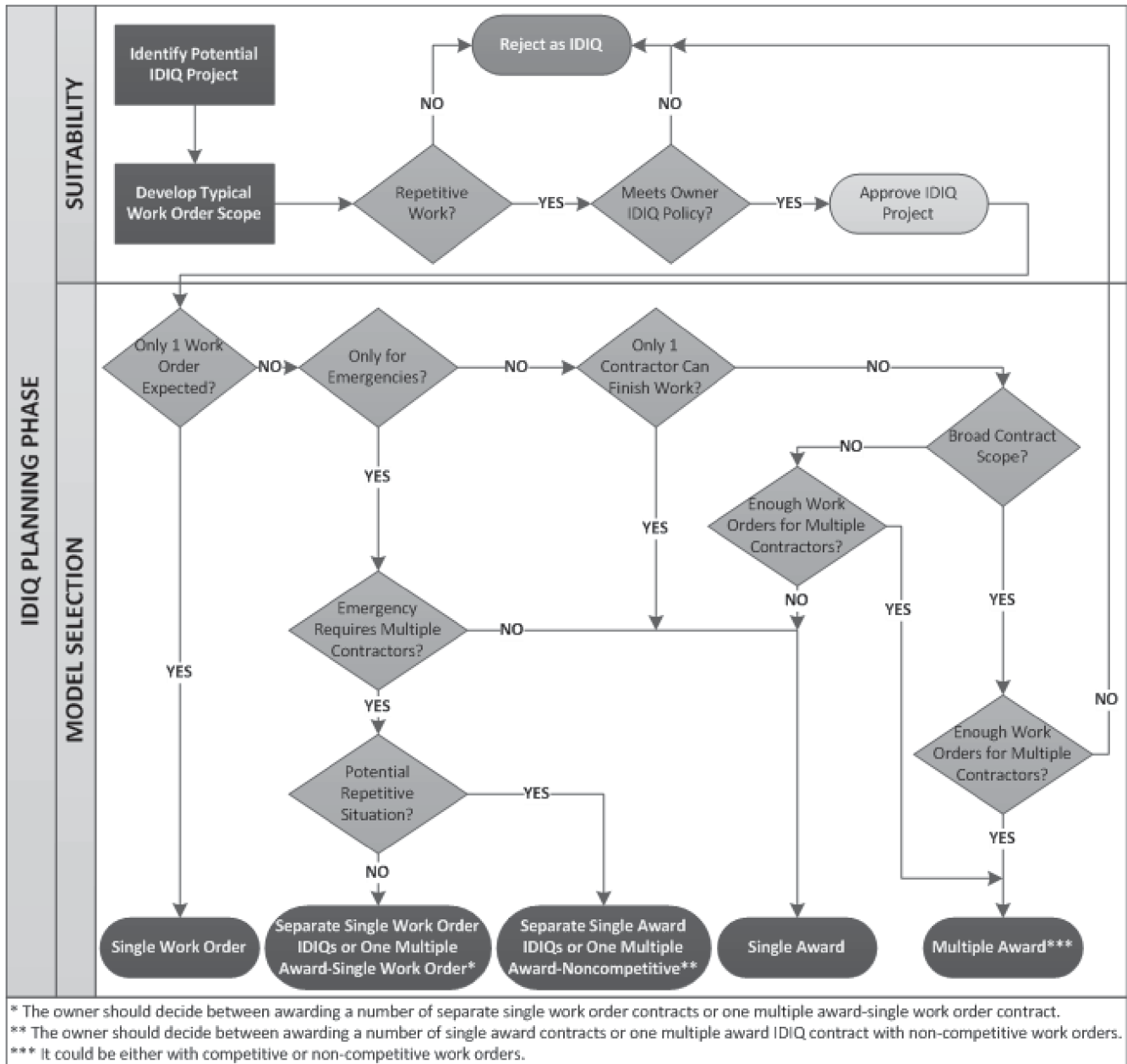


FIGURE 22 IDIQ planning framework.

In addition, a closer look at the data used to create these two figures shows that these contracts are used to procure preconstruction and design activities by all 41 (100%) of the agencies that reported the use of IDIQ contracting. Thirty-two of these agencies (78%) also use it for maintenance projects and, in turn, 24 (59%) are using IDIQ contracts for construction services. In other words, all agencies using IDIQ techniques for maintenance and construction projects are also using it for design activities. It is possible that most of these agencies started using this methodology for preconstruction services and, as with the federal sector, moved on to use it for more complex maintenance and construction projects as more experience was acquired with the approach.

The following sections briefly present and discuss some specific elements of design IDIQ contracts, including advertise/award procedures, proposal submittal requirements, and multiple award structures.

Advertise/Award Procedures in Design IDIQ Contracts

As done for construction and maintenance services, DOT survey participants were asked to indicate their advertise/award procedures in use for the procurement of design services through IDIQ contracts. Table 13 shows the responses

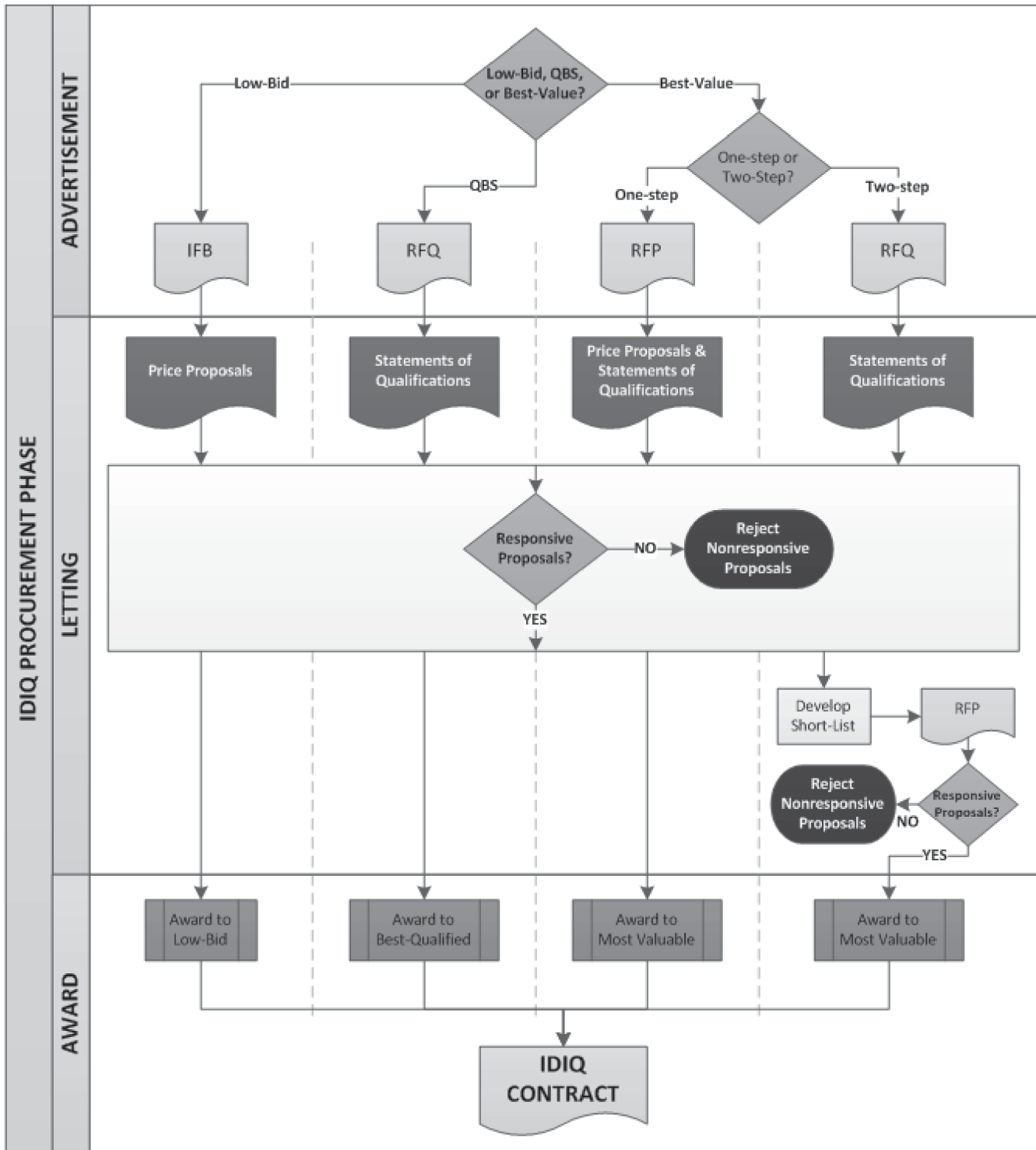


FIGURE 23 IDIQ procurement framework.

to this question complemented with observations obtained from the content analysis techniques applied to IDIQ solicitation documents.

It can be concluded from Table 9 and Table 13 that simpler low-bid and QBS approaches are more commonly used than best-value selection procedures to advertise and award

IDIQ contracts in the transportation industry at the state level. As mentioned earlier, low-bid procedures appear to fit better with construction and maintenance services, while (as indicated in Table 13) a greater use of one-step QBS procedures can be seen in design IDIQ contracts, as usually done with non-IDIQ contracts for design services (Gransberg and Ellicott 1997). Figure 25 illustrates the same data contained

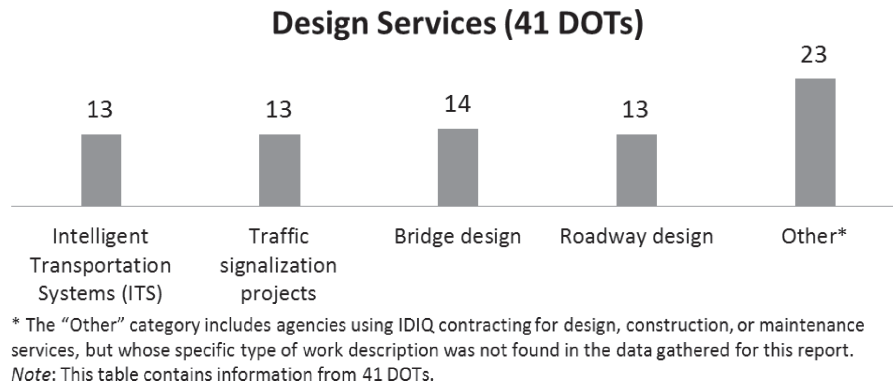


FIGURE 24 Use of design IDIQ contracts by state DOTs.

TABLE 13
 ADVERTISING AND AWARD PROCEDURES FOR DESIGN SERVICES

Advertising and Award Procedures	Design	%
IFB—Low-bid contractor selection, full open competition	4	16
IFB—Low-bid contractor selection, competition restricted to prequalified entities	4	16
RFQ—One-step QBS, full open competition	18	72
RFP—One-step best-value selection, full open competition (including qualifications, technical capabilities, and price)	4	16
RFQ/RFP—Two-step full open competition	3	12
RFQ—One-step QBS, competition restricted to prequalified entities	3	12
RFP—One-step best-value selection, competition restricted to prequalified entities (including qualifications, technical capabilities, and price)	0	0
RFQ/RFP—Two-step best-value selection, competition restricted to prequalified entities	3	12
Multiple contractors selected—Low-bid contractors selection	0	0
Multiple contractors selected—QBS	7	28
Sole source	2	8
Totals	25	

Note: It was possible for a single agency to select more than one procedure. Thus, the numbers and percentages shown will not add up to 100%.

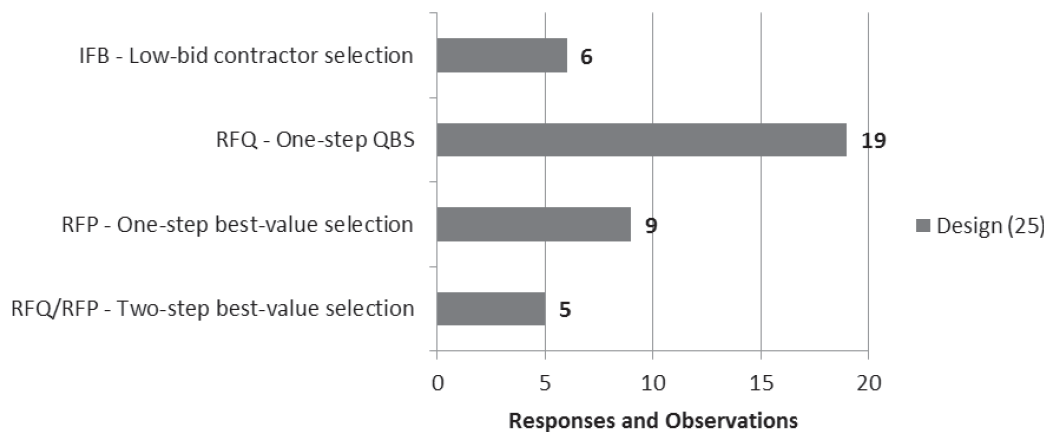


FIGURE 25 Advertising and award procedures for design services.

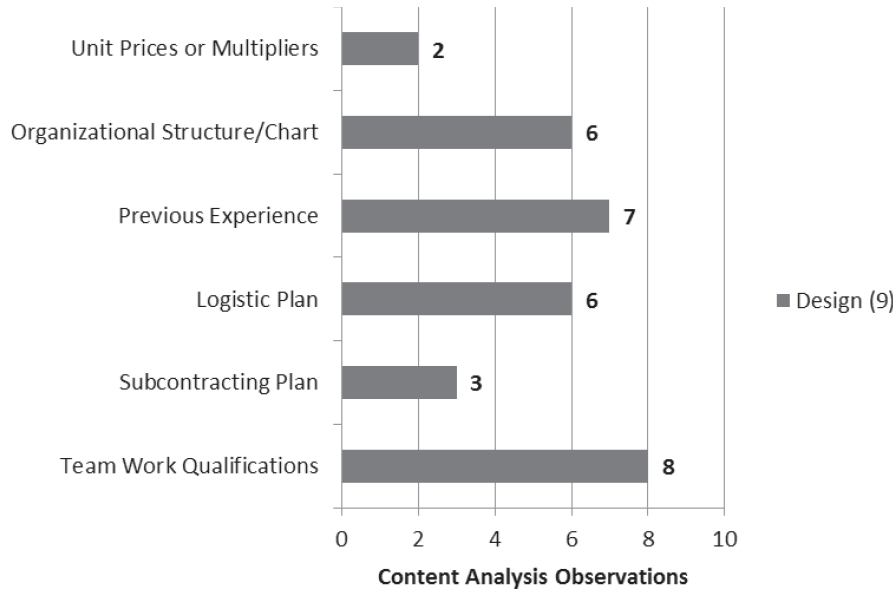


FIGURE 26 IDIQ proposal submittal requirements for design services.

in Table 13, but arranged in more general categories. This figure provides an easier perception of the use of these advertise/award approaches for design IDIQ contracts, highlighting the wide use of one-step QBS procedures for this type of IDIQ contract.

Proposal Submittal Requirements for Design IDIQ Contracts

Given the subjective nature of procedures to determine the qualifications and technical capabilities of potential award-ees required in QBS and best-value selection practices, agencies are forced to evaluate multiple factors increasing the size of the proposals. This is the reason why the five non-price submittal requirements in Figure 26 are more often found in design IDIQ contracts than those in construction/maintenance projects (see Figure 18). The qualifications and past performance elements are commonly used to determine the contractor’s ability to perform all types of work to be required under a given contract.

Multiple Award Design IDIQ Contracts

From the 14 survey participants who reported the use of multiple award IDIQ contracts, only six DOTs reported their use for the procurement of design services: Colorado, Florida, Georgia, Tennessee, Washington State, and Oklahoma. The first four agencies also indicated the use of this contracting approach for construction/maintenance projects. To get a better understanding of the implementation of these practices at the state level in the transportation industry, content analysis procedures were applied to multiple award design IDIQ contract documents from three state DOTs; South Carolina, Texas, and Washington. Table 14 presents a summary of the

multiple award design IDIQ contracts executed by the South Carolina and Texas DOTs, and some contracting practices obtained from the Washington State DOT’s *Consultant Services Manual* (WSDOT 2011).

Although Table 14 does not contain enough data to allow for drawing strong conclusions regarding effective advertise/award practices for multiple award design IDIQ contracts, it is important to note that two of the three cases presented in this table use best-value selection procedures instead of the QBS approach commonly used to procure this type of service. The common use of best-value procedures as a mechanism to manage the risk of awarding larger and longer projects (as stated earlier in this report) suggests that the Texas and Washington State DOTs perceive a certain level of risk in these contracts, leading them to implement selection procedures to ensure that the contract will be awarded to the designer and/or consultant with the required technical and logistic skills for a reasonable price.

As occurs with the multiple award construction/maintenance contracts presented earlier in this chapter, the work order placement procedures described in Table 14 are not fully competitive procedures based on price proposals and/or qualifications packages originally submitted to compete for the contract. Likewise, it can be seen how, as observed in the construction/maintenance contracts, selection procedures used at the contract level are somehow emulated at the work order level to assign work among awardees.

The contract from the South Carolina DOT in Table 14 is presented and analyzed in detail in Appendix D. The pricing for this contract was individually negotiated between each contractor and the agency. However, it is still consid-

TABLE 14
MULTIPLE AWARD DESIGN IDIQ CONTRACTS

Agency	Feature	Description
SCDOT	Project Description	Bridge design engineering services
	Contract Duration (years)	3
	Advertise/Award	RFQ—One-step QBS
	Number of Awardees	6
	Work Order Placement Procedure	“Consultants will be evaluated and ranked based on their score during the selection process. Consequently, work under each On-Call will initially be assigned based on the consultant’s ranking. Once the list has been exhausted, work will then be assigned to best maintain equity in the value of work unless an exception is approved” (SCDOT 2014).
TxDOT	Project Description	Biological or environmental services
	Contract Duration (years)	2
	Advertise/Award	RFP—One-step best-value
	Number of Awardees	Up to 4
	Work Order Placement Procedure	Texas DOT uses best-value techniques to assign each work order. For each work order the agency evaluates the qualifications, experience, and price in accordance with the specific characteristics of each project. Evaluation elements are obtained from bid packages originally submitted by contractors.
WSDOT*	Project Description	Consultant services
	Contract Duration (years)	N/A
	Advertise/Award	RFP—One-step best-value
	Number of Awardees	All bidders at or above a certain score
	Work Order Placement Procedure	Work orders are assigned through best-value procedures using information and rates originally submitted by consultants. However, consultants are allowed to submit different rates only if they are lower than those originally submitted.

*WSDOT multiple award IDIQ practices were not obtained from solicitation documents of a specific contract. It was obtained from the agency’s *Consulting Services Manual*.
N/A = not available.

ered as a multiple award IDIQ contract since the results of these negotiations are not intended to lower or increase the contractors’ ability to be considered to perform any work order during the contract period. South Carolina DOT’s work order placement procedures are based entirely on original qualification scores assigned when awarding the contract.

SUMMARY

This chapter found that the use of IDIQ techniques along with DBB, DB, or CMGC does not alter the fundamental structure of these delivery methods. Likewise, owners may expect the same benefits and disadvantages commonly attributed to

these delivery methods, but at the work order level. It also discovered a wide range of potential benefits perceived by different state DOTs in the use of IDIQ contracting. Most state DOTs perceive the acceleration of the project delivery period as the most important benefit associated with this contracting approach, followed by enhanced flexibility in delivery scheduling.

Keeping pre-award proposal submittal requirements to a minimum and implementing streamlined contracting techniques such as oral proposals and page limitations appear to be effective practices. Additionally, conducting training sessions with in-house staff and pre-bid meetings with bidders to instruct them about this IDIQ contracting approach was also quite effective.

CONTRACT ADMINISTRATION PROCEDURES

INTRODUCTION

This chapter discusses the post-award administration procedures currently in use to successfully manage an IDIQ contract at the work order level. An agency's outstanding ability to conduct pre-award activities is irrelevant if preconceived plans and strategies are not appropriately applied after award of the contract (Haukohl and Macicak 2012). In a traditionally procured contract, these plans and strategies are usually communicated to project managers through completed design, milestone schedules, budgets, and detailed scope of work for the entire contract. All of these elements constitute guidelines to ensure that the project proceeds as planned. However, to achieve the flexibility desired in an IDIQ contract, some or all of these elements are typically incomplete, making it harder to coordinate work between different project phases. Therefore, it is important to develop well-defined policies and procedures, such as those found in the study and presented in this chapter, to successfully accomplish work under an IDIQ contract.

In addition to work order development and administration procedures, this chapter discusses three key issues found during the literature review and case example analysis that must be fully addressed in order to achieve a successful implementation of IDIQ techniques. These issues are payment for mobilization costs, escalation of construction pricing on multi-year IDIQ contracts, and the impact of IDIQ contracting on surety bonds.

WORK ORDERS—DEVELOPMENT AND ADMINISTRATION

Every project to be executed within an IDIQ contract begins with the issuance of work orders. In other words, a work order becomes the primary contract document and determines location, contract time, scope of work, and any other additional information required by the contractor to successfully perform all work contained in the work order (MnDOT 2014). Figure 27 shows a generic work order development process synthesized from the information collected in this study. Specific DOT cases in the next chapter show more detailed procedures in accordance with the procurement policies and administration practices of each agency.

Work orders become the primary contract document and determine location, contract time, scope of work, and other project related information.

To develop a work order, the owner first must identify a project and verify that it is suitable to be executed under a given IDIQ contract in accordance with the scope stated in the solicitation documents. If the project falls within the IDIQ contract scope, the owner proceeds to develop the work order to be performed by a contractor. Once the project is completed by the contractor, the owner will verify that work and services provided meet the requirements stated in the work order. Upon approval of the work delivered, the owner proceeds with final payment and work order close-out activities. If the owner rejects the work, the contractor will make corrections until it meets the acceptance criteria stated in the work order or contract documents.

Work Order Scoping

The scoping of work orders actually starts with the planning of the contract. It is important that owners are careful when determining potential scope and expected size of work orders to be issued under the contract. IDIQ minimum guaranteed amounts are typically established so that the agency is committed to award at least one work order to each awardee (Rueda 2013), and corresponds to effective practices in IDIQ contracts awarded by the CFLHD and FDOT (FDOT 2009; CFLHD 2012). Since the minimum value represents the worst case scenario for bidders, they may choose to prepare price proposals based on this minimum amount of work. Therefore, work orders that are too small may encourage higher than normal bid pricing, and too large work orders may prevent the agency from reasonably awarding future work.

A complete analysis of this issue allows the authors to propose an approach to establish an optimal scope and size of work orders. When planning these aspects of the contract, owners are to consider the average monetary size of potential projects to be executed under the contract if traditional contracting methods are used. If the agency maintains this average size for all work orders, bids should be similar to those obtained using a single-project contracts (Rueda 2013).

Contractor Involvement in Work Order Development

Some authors and studies strongly recommend the use of interactive work order development procedures with high levels of communication between owners and contractors (OFPP 1997; Thornton 2002). Given that when using IDIQ techniques contractors are awarded the contract before all

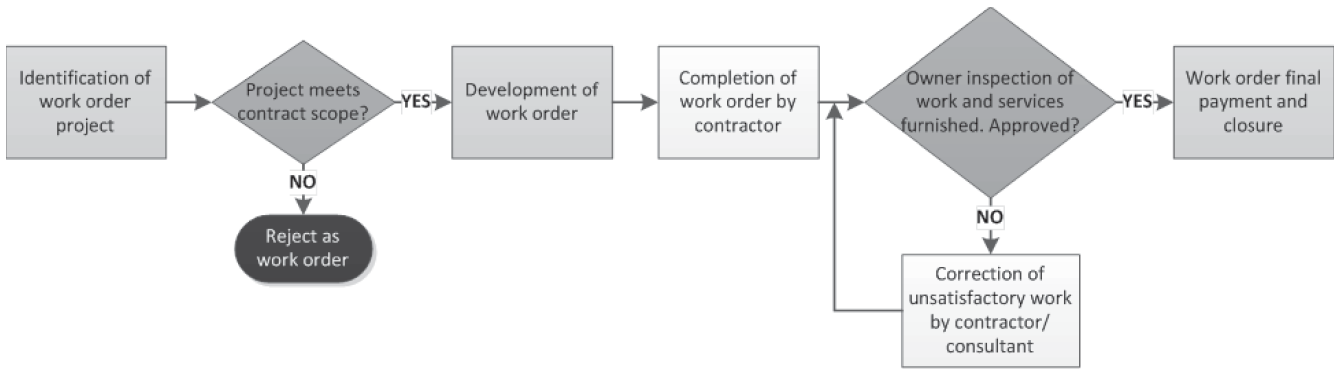


FIGURE 27 Work order development process.

the work orders are developed, at least after the initial one, agencies can request input during the preconstruction phase of work order development, in a manner similar to that used in CMGC contracts (Shane and Gransberg 2010). This philosophy was found in two state transportation agencies using single award IDIQ contracts; Missouri and New York State.

The work order development procedures of these two agencies are explained in detail in chapter five. The two DOTs allow time during work order development to discuss project-related issues with contractors before issuing the final work order document as follows:

- An initial meeting is held with the contractor to jointly discuss the scope of a given work order.
- After the initial meeting, the agency prepares a draft of the scope, which is again reviewed by the contractor and returned to the owner with comments.
- Once having developed the final work order document, it is send to the contractor who must prepare and submit a proposal.
- Upon submission of this proposal, the parties have a final meeting to discuss any remaining issues before starting with the execution of the work order (NYSDOT 2009; MoDOT 2010).

It is important to understand that this level of communication and interaction between contractors and agencies is

difficult to obtain in multiple award IDIQ contracts owing to the implications of receiving preconstruction input from multiple contractors. However, some state transportation agencies, such as MnDOT, have found a limited response from contractors when trying to involve them in work order development procedures for single award IDIQ contracts

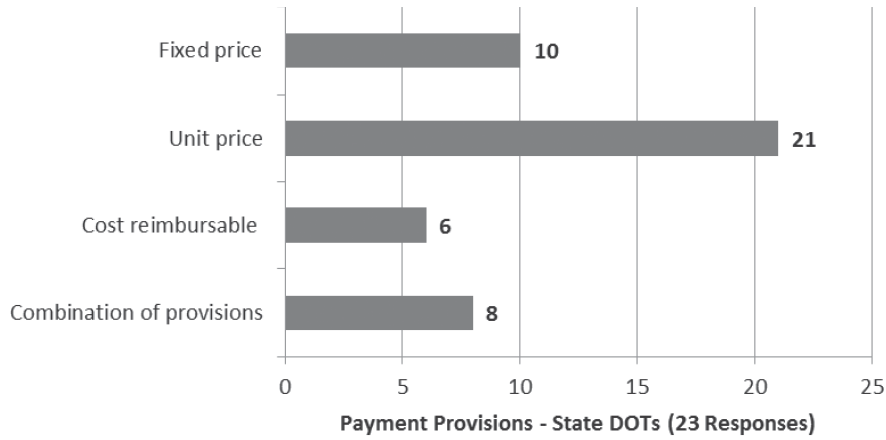
Work Order Placement Procedures—Multiple Award IDIQ

As mentioned in chapter three, this study found different multiple award approaches used by different state DOTs. This section describes some different work order placement procedures used by one federal and four state agencies for multiple award construction/maintenance IDIQ contracts. Table 15 permits the reader to see some differences between the multiple award approaches implemented by these state transportation agencies. In addition, the inclusion of a federal agency in this table allows a comparison to be made between these two types of transportation agencies.

Table 15 shows how some of the advertise/award methods discussed in chapter three can be also applied at the work order level. Although all state DOTs in Table 15 conduct non-competitive work order placement procedures, they are actually competing using bid packages and/or statements of qualifications originally submitted to compete for the contract. For instance, the California, Delaware, and Maine DOTs use

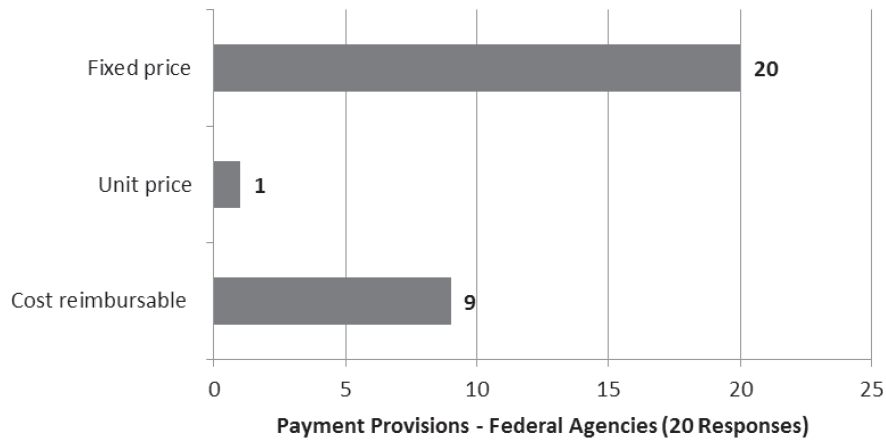
TABLE 15
WORK ORDER PLACEMENT PROCEDURES—MULTIPLE AWARD CONSTRUCTION/
MAINTENANCE IDIQ CONTRACTS

Agency	Number of Awardees	Work Order Placement Procedure
Caltrans	Up to 6	Each work order is assigned to the contractor with the lowest total price for the specific bid line items required for that work order. Total price is calculated using unit prices originally submitted by the contractor. If this contractor is unable to perform the work, the work order is assigned to the awardee with the next lowest price.
DelDOT	All responsive and responsible bidders	
MaineDOT	All responsive and responsible bidders	
VTrans	All responsive and responsible bidders	For this contract, Vermont DOT “will use discretion in selecting firms for each individual assignment. Assignments of work will be based on the cost to perform a particular assignment, the contractor’s availability and/or ability to complete an assignment within a specified time period” (VTrans 2011).
CFLHD	3	Each work order is advertised to all awardees. Then, contractors submit price proposals used by CFLHD to select the low-bid.



Note: Survey participants selected all options that apply

FIGURE 28 Payment provisions—State DOTs.



Note: Survey participants selected all options that apply

FIGURE 29 Payment provisions—Federal agencies.

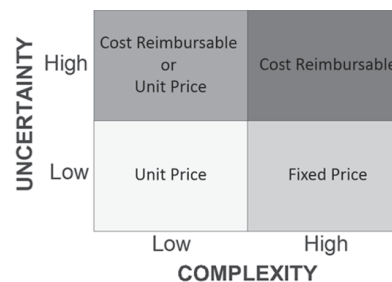
low-bid techniques to assign work orders using unit prices from contractors’ price proposals and pay items and quantities determined for each project. A comparison between this table and Table 10 in chapter three shows that procurement methods used by these agencies to award contracts have been extended to the work order level.

Payment Provisions

Survey participants from state DOTs were asked to indicate the payment provisions used in their typical IDIQ contracts. Figure 28 shows their responses to this question. Although not as common as unit price contracts, fixed-price and cost-reimbursable contracts are also being used by some agencies. In addition, survey responses showed that 35% of the agencies that responded to this question are using a combination of these methods in a single contract. However, a review of IDIQ contract documents from 20 federal agencies showed a different trend with a greater use of fixed-price contracts (see Figure 29).

The difference between these two approaches may be explained by Figure 30. Based on the observed use that public owners are given to payment provisions shown in

Figures 28 and 29, a decision-making system was developed based on the complexity and uncertainty perceived in each project. The purpose of this decision-making system is to help agencies select suitable payment provisions for each project. When considering the use of the fixed-price projects shown in Figure 30, it can be inferred that the greater use of this payment



Complexity: Ability to break a work order down into simple and measurable units of work.

Uncertainty: Ability to anticipate a reliable quantity of work to be performed before issuing a work order

FIGURE 30 IDIQ payment provision decision system.

method by federal agencies is because these agencies handle larger budgets and execute larger and more complex projects.

The information in Figure 30 also allows one to conclude that those contracts that permit a combination of payment provisions may have broad scopes for the issuance of different types of work orders. In other words, the use of multiple payment provisions in a single IDIQ contract allows agencies to undertake projects with different levels of complexity and uncertainty.

The use of multiple payment provisions in a single IDIQ contract allows agencies to undertake projects with different levels of complexity and uncertainty.

Construction Task Catalog

The use of construction task catalogs in IDIQ contracts is a practice adopted by at least seven agencies as indicated in the survey responses and literature review. The construction task catalog is intended to contain unit prices for all pay items required during the entire contract period. These unit prices include labor, equipment, and material costs (The Gordian Group 2011). Thus, contractors are required to bid a set of adjustment factors that represent profit and overhead. To calculate the total cost of each work order, the extended price of each item (unit price times work quantity) in the work order is multiplied by the respective adjustment factor. Usually interested contractors are required to bid a set of adjustment factors to be applied to each pay item in accordance with different working conditions. For instance, Table 16 shows two different sets of adjustment factors required by two different agencies; the New York State and Missouri

DOTs. Chapter five and Appendix D present a detailed analysis of contracts executed by these agencies.

Construction task catalogs (provided by owners) and adjustment factors (bid by contractors) are primarily used for two purposes; contractor selection and work order pricing procedures. Contracts from the New York State and Missouri DOTs analyzed in chapter five and Appendix D (whose adjustment factors are shown in Table 16) are both low-bid single award IDIQ contracts for construction/maintenance services. Unlike traditional low-bid IDIQ contracts, where the contract is awarded by totaling the extended price of all pay items, contractor selection procedures in these two contracts only total the extended prices of expected portions of work (in dollars) to be performed under the different working conditions associated with each adjustment factor. This process may be better understood with the following example, which was adapted from an example included in the IFB advertised by the Missouri DOT (MoDOT) (see Table 17).

The example in Table 17 consists of calculating the total bid for a contractor that submitted the adjustment factor presented in this table for a contract with a total base cost (before adjustment) equal to \$100,000. In this example, estimated percentages of work performed during normal work hours, nighttime, and weekends are 85%, 10%, and 5%, respectively.

The incorporation of adjustment factors into the selection formula supposes an additional source of risk. Taking into consideration the importance of maintaining a fair proportionality between bid quantities and actual quantities of work performed throughout the contract, the use of adjustment factors adds another element that should remain reasonably proportional during the project life cycle. In addition to maintaining a

TABLE 16
EXAMPLES OF ADJUSTMENT FACTORS

ADJUSTMENT FACTORS	
NYS DOT	Mo DOT
<i>Normal Work Adjustment Factor:</i> 7:00 a.m. to 5:00 p.m. Monday–Friday	<i>Normal Work Adjustment Factor:</i> 6:00 a.m. to 7:30 p.m. Monday–Friday
<i>Other than Normal Work Adjustment Factor:</i> 5:00 p.m. to 7:00 a.m. Monday–Friday All day Saturday, Sunday, and Holidays	<i>Nighttime Work Adjustment Factor:</i> 7:30 p.m. to 6:00 a.m. Monday–Thursday
	<i>Weekend Work Adjustment Factor:</i> 7:30 p.m. Friday–6:00 a.m. Monday Holidays

TABLE 17
MISSOURI DOT BID TOTAL CALCULATION EXAMPLE

Item Description	Approximate Quantity	Adjustment Factors	Bid Amount
Normal Work Adjustment Factor	0.85 x \$100,000 = \$85,000	1.10	\$85,000 x 1.10 = \$93,500
Nighttime Work Adjustment Factor	0.1 x \$100,000 = \$10,000	1.15	\$10,000 x 1.15 = \$11,500
Weekend Work Adjustment Factor	0.05 x \$100,000 = \$5,000	1.22	\$5,000 x 1.22 = \$6,100
Total Estimated Cost	\$100,000	Bid Total	\$111,100

Adapted from MoDOT (2010).

sufficient level of uniformity on the use of contract pay items (as used to estimate approximate quantities of work in Table 17), agencies using this type of IDIQ contract would keep, to the maximum extent possible, a uniform distribution of work among the different working conditions, following the percentages used for the selection of the contractor. This observation is not intended to disqualify the use of construction task catalogs and adjustment factors with IDIQ contracts; instead, it underlines this gap in knowledge as a potential topic for future study.

During an interview with MoDOT, there was an opportunity to learn the specific reason that this agency adopted this approach. The first version of IDIQ contracts implemented by the agency used a more traditional approach in which bidders were required to submit unit prices for all pay items and bid quantities. However, MoDOT found that this approach was susceptible to the submission of unbalanced bids by contractors. Therefore, this DOT decided to implement a bidding and payment system based on a construction task catalog and adjustment factors to improve its budget control in IDIQ contracts.

Mobilization

This section discusses a major issue with regard to IDIQ contracting; compensation of contractors for mobilization

expenses. This issue has been addressed in different ways by different agencies. For instance, the New York State and Missouri DOTs include mobilization pay items in their construction task catalogs to be used in accordance with the requirements of each work order. FDOT compensates contractors for mobilization expenses using a percentage of the construction cost. In the case of multiple award contracts with competitive work orders, mobilization expenses are included in the price for each work order. However, it is not included in the case of single award IDIQ contracts, where the contractor is only allowed to bid once when there is no precise information about exactly when, where, and how each work order will be performed.

The team found four different approaches used to compensate contractors for mobilization expenses and asked DOT and contractor survey participants to rank them on a scale of 1 to 4 from the most suitable (1) to the least (4). They were also asked to indicate those alternatives that they consider not suitable at all. In addition, the repetition of rank position was allowed for those alternatives they considered equally valuable. This section analyzes responses from state DOTs, AGC/ARTBA contractors, and MnDOT contractors. Table 18 presents the responses from the three groups of IDIQ users. It appears to be clear that Option 3 is the most preferred alternative for most survey participants in all three

TABLE 18
MOBILIZATION COMPENSATION APPROACHES—SURVEY RESPONSES

State Departments of Transportation									
Option #	Description	1	2	3	4	Not Suitable	Total Responses	Mean	
1	Fixed percentage of the construction cost stated by the agency (owner) and applied to each Work Order.	4	1	3	6	8	22	3.59	
2	Fixed percentage bid by contractors to be applied to each Work Order and factored into the selection of the low bid.	4	4	3	4	7	22	3.27	
3	Fixed price bid by contractors to be used on each Work Order.	9	1	3	1	6	20	2.70	
4	No separate mobilization pay item. Mobilization expenses are included in the bid items.	6	5	4	1	5	21	2.71	
AGC/ARTBA Contractors									
Option #	Description	1	2	3	4	Not Suitable	Total Responses	Mean	
1	Fixed percentage of the construction cost stated by the agency (owner) and applied to each Work Order.	2	2	5	2	2	13	3.00	
2	Fixed percentage bid by contractors to be applied to each Work Order and factored into the selection of the low bid.	4	5	3	0	1	13	2.15	
3	Fixed price bid by contractors to be used on each Work Order.	7	3	2	0	1	13	1.85	
4	No separate mobilization pay item. Mobilization expenses are included in the bid items.	1	1	1	6	5	14	3.93	
MnDOT Contractors									
Option #	Description	1	2	3	4	Not Suitable	Total Responses	Mean	
1	Fixed percentage of the construction cost stated by the agency (owner) and applied to each Work Order.	4	7	10	8	8	37	3.24	
2	Fixed percentage bid by contractors to be applied to each Work Order and factored into the selection of the low bid.	5	12	8	6	6	37	2.89	
3	Fixed price bid by contractors to be used on each Work Order.	19	5	6	5	2	37	2.08	
4	No separate mobilization pay item. Mobilization expenses are included in the bid items.	1	1	4	15	16	37	4.19	

surveys. However, the other positions in the ranking are not easy to identify. This drawback can be easily overcome by using the *mean* column to measure the acceptability of each option. This mean is calculated by assigning a value of 5 when a particular option was considered not suitable at all and using the respective value for the other responses (values from 1 to 4). Thus, those alternatives with low overall rankings, with 1 being the minimum possible mean, will be preferred over those with high overall values, with 5 being the maximum possible mean.

Figure 31 illustrates the difference in opinions between each group of participants regarding the appropriateness of each mobilization compensation option for single award IDIQ contracts.

It presents the preferences for each group of survey participants in simpler form. This figure shows that all three surveys ranked Option 3, “fixed price on each work order,” as the most attractive alternative to compensate a contractor for mobilization expenses in a single award

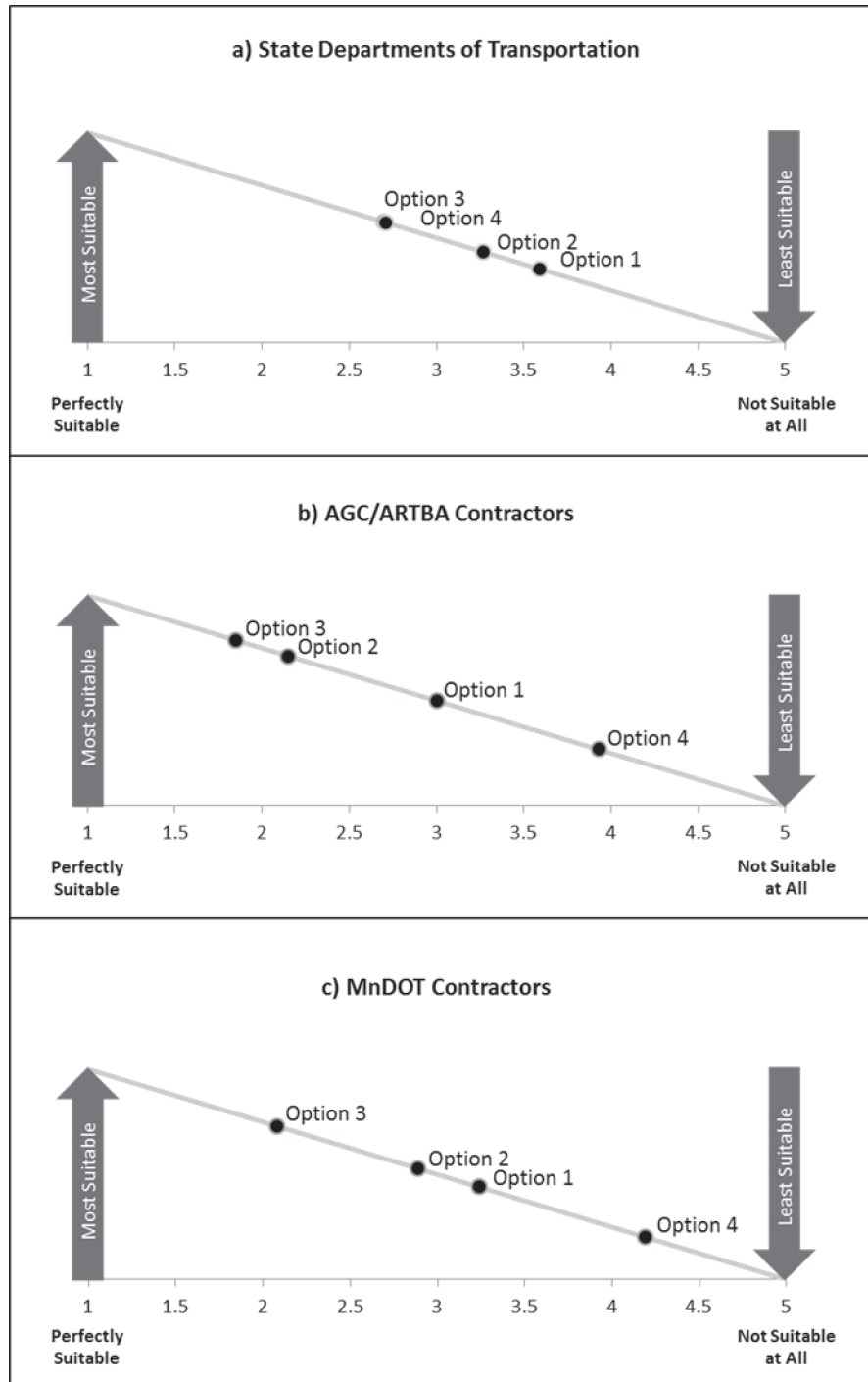


FIGURE 31 Mobilization compensation approaches—Suitability diagram.

IDIQ contract. This option consists of a fixed-price bid by contractors during procurement to be used on each work order. On the other hand, it can be noted that state DOTs consider the use of no separate mobilization pay items in the contract to be virtually as good as using a fixed price for each work order, an approach that was strongly rejected by both populations of contractors.

A statistical analysis of data in Table 18 showed a strong correlation in the responses from both groups of contractors; therefore, it can be considered that both types of survey participants present the same opinion about all compensation alternatives listed in the table. Even more important, this analysis showed that the opinions of state DOTs and contractors with regard to the top ranked alternative (Option 3) are significantly similar, confirming the preference for this mobilization compensation approach by most participants.

A similar conclusion was obtained from the study conducted for MnDOT (Gransberg and Rueda 2014). However, the selection of the fixed price for each work order alternative as the preferred approach was validated with input submitted by contractors and MnDOT's staff. This input highlighted an important aspect to be considered; that during initial bidding there is high uncertainty regarding work order project locations and scopes. Therefore, it would be difficult for contractors to determine a rational "one-size-fits-all" mobilization price for every potential work order. This situation forces contractors to use the worst case scenario (i.e., mobilization to the most remote point in the contract area), and agencies would pay more for projects that do not match that scenario. Therefore, Option 3 was extended from one to multiple mobilization items to be bid by contractors.

By asking contractors to bid on various mobilization pay items, anticipating different potential case scenarios, agencies have more flexibility to execute larger contracts covering more locations with a single solicitation. Thus, contracts with broader scopes and with potential projects distributed in larger regions would require a greater number of mobilization pay items to counteract the scope and location uncertainty (Gransberg and Rueda 2014). Therefore, it can be concluded that a highly effective mobilization compensation approach would be one in which contractors are required to bid fixed prices on multiple mobilization pay items, whose applicability will be individually determined by the agency on a case-by-case basis in accordance with the scope and location of each work order project.

By asking contractors to bid on various mobilization pay items anticipating different potential case scenarios, agencies would have more flexibility to execute larger contracts covering more locations with a single solicitation.

Price Escalation

Price escalation in multi-year IDIQ contracts was another major issue. This issue primarily applies to single award and multiple award contracts with non-competitive work orders. Given the absence of competition in the adjudication of work orders in these two cases, contractors are either required to maintain unit prices throughout the contract period (no escalation clauses) or expect a fair adjustment in contract prices in accordance with actual changes in the construction market. However, given the dynamics of the construction industry, the volatility of construction material prices, the uncertainty regarding actual construction activities, and the difficulty in determining a feasible distribution of work along the duration of an IDIQ contract, it is hard for contractors to accurately estimate unit prices for multi-year contracts, making it difficult for them to bid on long-term contracts with no escalation clauses (Rueda 2013). Conversely, if these escalation clauses are not consistent with actual changes in the construction market, contractors would be compelled to include larger contingencies in their price proposals. This study found that most contractors are willing to bid on multi-year IDIQ contracts even without escalation clauses, although it would represent higher construction costs for the agency.

Following a similar procedure as the one presented in the previous section to find a suitable mobilization approach, participants in the contractors and DOT staff surveys were asked to rank seven different alternatives on a scale of 1 to 7, from the most suitable for IDIQ contracting (1) to the least (7). Also, participants were asked to indicate those alternatives they do not consider suitable at all and repeat ranking positions in those cases that consider that two alternatives are equally valuable. The use of more alternatives makes Table 19 more difficult to read. However, again the mean column can be used to assess the preferences of each survey participant in each survey. Figure 32 illustrates the different opinions reported by each group of participants with regard to the appropriate price escalation approach for multi-year single award IDIQ contracts. In this case these surveys clearly show different opinions, unlike what happened with mobilization compensation approaches.

An important observation from Figure 32 is that while for most state DOTs the use of no escalation clauses appears to be the most suitable alternative, this is the least preferred option for contractors. The similarity of opinions of both groups of contractors in relation to this price escalation alternative was confirmed by conducting a statistical test.

Without considering Option 7, owing to the higher costs that it may represent for contractors (Rueda 2013) and the inconvenience that it appears to represent for contractors, Option 3 becomes the most suitable alternative for state DOTs and AGC/ARTBA contractors. It involves the use of existing national or local indexes such as the Producer Price Index published by the Bureau of Labor Statistics, the Construction

TABLE 19
PRICE ESCALATION APPROACHES—SURVEY RESPONSES

State Departments of Transportation											
Option #	Description	1	2	3	4	5	6	7	Not Suitable	Total Responses	Mean
1	Fixed annual percentage stated by agency (owner) to adjust all bid items.	4	1	1	1	0	1	3	8	19	5.47
2	Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items factored into the selection of the low bid.	0	2	2	0	2	2	2	9	19	6.21
3	Using a national or local existing index (ENR, BLS, RSMeans).	3	3	2	1	2	1	3	4	19	4.63
4	Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	1	0	1	6	0	1	3	6	18	5.72
5	Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.).	1	0	3	3	0	2	4	6	19	5.79
6	Using an index by pay item. Measure the change of a pay item by using historical bid data from that or similar items.	1	3	0	1	1	3	3	7	19	5.84
7	No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	9	1	1	3	1	1	0	2	18	2.94
AGC/ARTBA Contractors											
Option #	Description	1	2	3	4	5	6	7	Not Suitable	Total Responses	Mean
1	Fixed annual percentage stated by agency (owner) to adjust all bid items	2	3	1	1	3	1	1	1	13	3.92
2	Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items factored into the selection of the low bid.	4	0	2	2	3	1	1	1	14	3.86
3	Using a national or local existing index (ENR, BLS, RSMeans).	3	6	1	1	1	1	0	1	14	2.93
4	Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	3	0	5	1	2	2	0	0	13	3.38
5	Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.).	2	1	2	4	3	1	0	0	13	3.62
6	Using an index by pay item. Measure the change of a pay item by using historical bid data from that or similar items.	2	1	0	3	2	3	1	1	13	4.54
7	No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	0	0	0	2	1	0	5	6	14	6.86
MnDOT Contractors											
Option #	Description	1	2	3	4	5	6	7	Not Suitable	Total Responses	Mean
1	Fixed annual percentage stated by agency (owner) to adjust all bid items	4	3	4	9	1	6	6	3	36	4.58
2	Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items factored into the selection of the low bid.	9	6	6	5	3	2	2	3	36	3.44
3	Using a national or local existing index (ENR, BLS, RSMeans).	2	9	5	5	2	1	6	6	36	4.47
4	Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	0	5	4	7	2	3	9	6	36	5.25
5	Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.).	0	2	2	11	6	2	6	7	36	5.39
6	Using an index by pay item. Measure the change of a pay item by using historical bid data from that or similar items.	4	3	4	7	3	5	5	5	36	4.72
7	No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	1	3	0	2	3	3	9	15	36	6.42

Cost Index (CCI) published by the *Engineering New-Record*, or the CCI issued by RSMeans. On the other hand, contractors doing business with MnDOT showed a clear preference for Option 2 over the use of external existing indexes.

While conducting the research on IDIQ methods for MnDOT (Rueda 2013), it was decided to take a closer look at the use of external indexes to adjust unit prices over time. To analyze this practice, 12 different cost indexes, including one published and maintained by MnDOT, were applied to four different types of projects over a five-year period. The calculation of the difference between unit prices obtained by using these indexes and actual prices observed on MnDOT's his-

torical bid data showed a poor correlation between external cost indexes and actual changes in the construction market.

Table 20 shows average variations obtained by each of these indexes on each type of project. It is important to note that these analyzes only apply to construction projects executed by Minnesota. These indexes may better represent construction price changes in other states. This poor correlation may also be perceived by contractors doing business in Minnesota, so that it could be the reason for preferring a fixed annual adjustment rate included in the bid package. What this analysis shows is that the applicability of external indexes in IDIQ contacts to adjust unit prices over time could to be assessed on a per

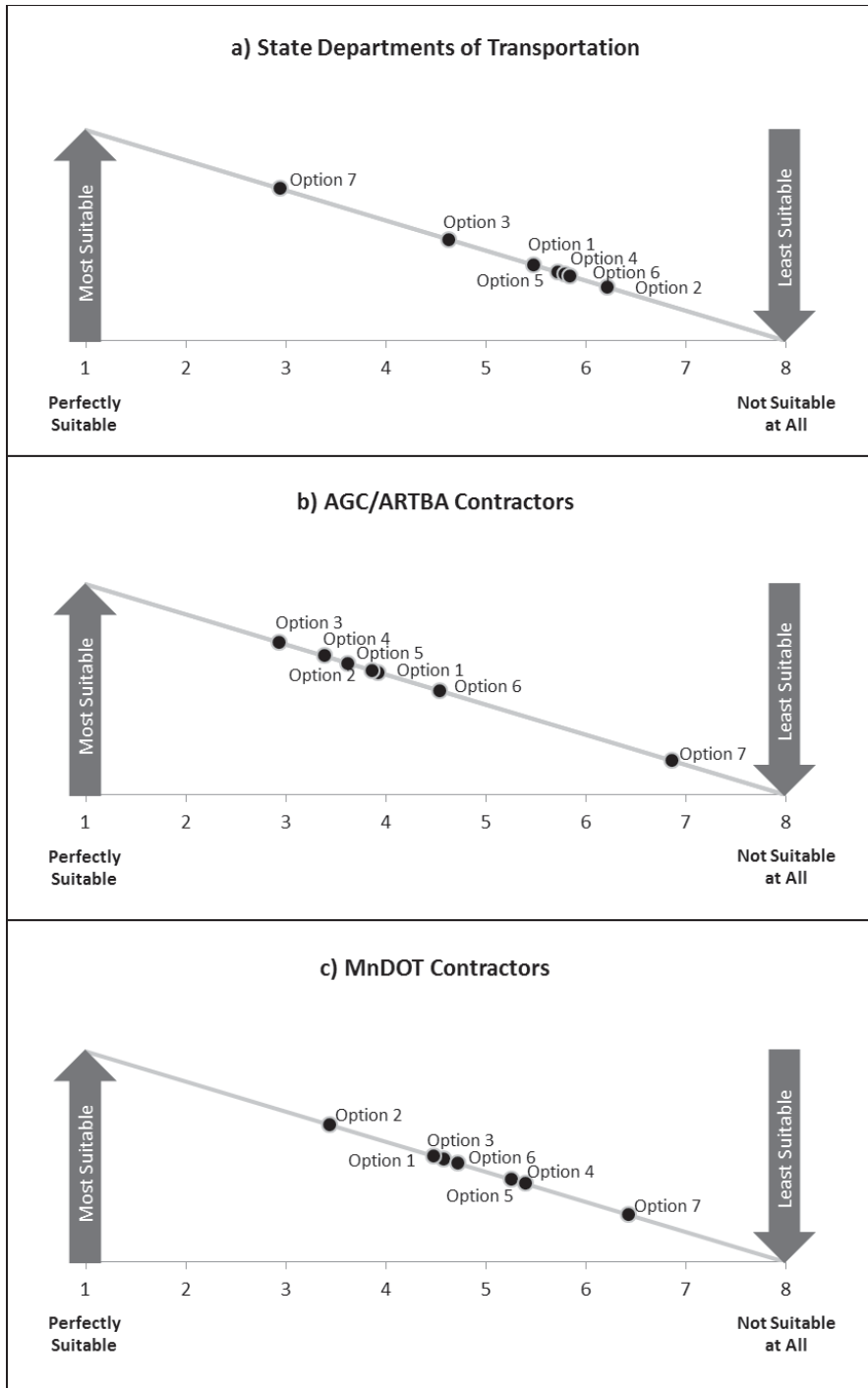


FIGURE 32 Price escalation approaches—Suitability diagram.

agency basis. These indexes may not be equally applicable for all agencies.

Given the previous analysis and the apparent acceptance of MnDOT’s contractors for an alternative approach as the one described in Option 2 (see Figure 32), a method called *A times E* ($A \times E$) bidding was developed. Similar to *A + B* contracting, in an IDIQ $A \times E$ contract contractors are required to bid in two different parts; A and E. In part A, contractors

must submit unit prices for those pay items and bid quantities advertised by the agency; items that are expected to be repeatedly used in different work orders throughout the contract and bid quantities that are intended to be in proportion with typical work orders. In part E, bidders are required to submit a fixed annual adjustment rate to be used to modify bid unit prices on the anniversary date of the letting of the contract. This adjustment rate is then transformed into an escalation multiplier (E), which along with the price proposal (A),

TABLE 20
AVERAGE VARIATION PER INDEX AND TYPE OF WORK

Cost Indexes	Average Variation (+/-)				
	Asphalt Pavement	Concrete Pavement	Traffic Barriers	Drainage	Average per Index
Building Construction Indexes (National)					
RSMeans—CCI (National)	18.82%	7.93%	6.44%	10.83%	11.00%
ENR—BCI (National)	18.76%	8.07%	10.25%	10.28%	11.84%
Average per Type of Project	18.79%	8.00%	8.34%	10.56%	—
Highway Construction Indexes					
ENR—CCI (National)	17.20%	7.72%	11.07%	9.30%	11.32%
BLS—PPI	26.98%	16.54%	10.62%	17.52%	17.91%
NHCCI (National)	33.83%	25.16%	20.94%	26.41%	26.58%
Caltrans (Quarterly)	30.12%	19.96%	26.47%	21.90%	24.61%
Caltrans (12-M)	27.06%	17.59%	20.56%	18.94%	21.04%
SDDOT	16.96%	6.48%	12.38%	8.15%	10.99%
Average per Type of Project	25.36%	15.58%	17.01%	17.04%	—
Minnesota & Minneapolis Indexes					
RSMeans—CCI (Minneapolis)	18.33%	7.63%	11.02%	10.61%	11.90%
ENR—BCI (Minneapolis)	19.96%	9.40%	9.96%	10.76%	12.52%
ENR—CCI (Minneapolis)	20.34%	9.46%	10.26%	11.21%	12.82%
MnDOT—CCI	18.09%	5.50%	12.92%	10.19%	11.68%
Average per Type of Project	19.18%	8.00%	11.04%	10.69%	—

Source: MnDOT (2014).

ENR = *Engineering News-Record*; NHCCI = National Highway Construction Cost Index.

compose the selection formula ($A \times E$) used to determine the low bid. Because contractors are expected to make better predictions with regard to future construction prices (Rueda 2013), $A \times E$ bidding is expected to increase the accuracy of price escalation methods as well as increase the confidence of contractors in understandable, fair, and transparent escalation clauses. As a result of the lower uncertainty perceived

by bidders, this method is expected to reduce bid unit prices by lowering the need for contingencies related to the use of inadequate price escalation methods and the higher risk inherent in long-term construction contracts.

Tables 21 and 22 contain an example of the use of this method using a preliminary equation for the calculation of

TABLE 21
A \times E EXAMPLE—BID SCHEDULE

BID SCHEDULE					
Pay Items	Quantity	Bidder 1		Bidder 2	
		Unit Price	Extension	Unit Price	Extension
Item X	11,631	\$0.63	\$7,328	\$0.90	\$10,468
Item Y	1,479	\$64.55	\$95,469	\$64.00	\$94,656
Item Z	1,530	\$2.72	\$4,162	\$2.82	\$4,315
Total Bid			\$106,959		\$109,439

TABLE 22
A \times E EXAMPLE—CONTRACTOR SELECTION

	A	Escalation Rate (r)	E	A \times E
Bidder 1	\$106,959	8%	1.03%*	\$110,450
Bidder 2	\$109,439	2%	1.01%	\$110,319**
$E = 0.1r^2 + 0.4r + 1$				Eq. 1
A = Price Proposal; E = Escalation Multiplier				
* As shown in Eq. 1				
** Bidder 2 wins.				

the escalation multiplier (Equation 1 in Table 22). It was determined that this equation represents an acceptable level of risk for MnDOT in relation to effectively awarding the low bid. This equation corresponds to a weighted sum of bid schedules for a three-year period. A three-year period was used given that the maximum number of times MnDOT will adjust its IDIQ contracts during the base contract period (construction time without extensions) is two. About 60% of current MnDOT IDIQ contracts will be effective for at least three contract periods. No contract extensions were considered when developing this equation because once finished with the base period, MnDOT will have the opportunity of deciding whether or not to extend the contract in accordance with adjusted unit prices at that moment, actual unit prices that would be obtained if reprocurring the contract, and the cost of executing a new contract.

Weights assigned to the first, second, and third contract periods are 70%, 20%, and 10%, respectively. Weights were determined by considering the relative importance of each period. Lower unit prices are more important during the first period because the minimum guaranteed amount is usually covered during the first year of the contract. Once this minimum amount of work is reached, MnDOT could stop issuing work orders to the contractor on the second or third period. Likewise, obtaining lower prices for the second period is more important than getting those for the third period given the higher probability of performing work during earlier contract periods.

It is important to note that this is a preliminary model and the escalation multiplier equation is to be modified as a result of an assessment of bidders' reactions and behavior as a result of the implementation of this approach. In addition, this model was specifically developed for the MnDOT single award IDIQ contracts after a comprehensive analysis of its historical bid data; therefore, its applicability for other agencies should be carefully analyzed.

Table 21 shows an example of a bid schedule with unit prices submitted by two different bidders for three pay items. In a traditional low-bid approach, Bidder 1 would be selected for the execution of the contract. However, Table 22 shows that the most effective overall proposal when considering all contract periods is the one from Bidder 2.

INDEFINITE DELIVERY/INDEFINITE QUANTITY SURETY BONDS

Developing pragmatic bond schemes for IDIQ contracts is an important issue given the typical high uncertainty in IDIQ techniques associated with actual quantities of work to be required under the contract. Usually agencies must select one of the following bond schemes:

- Submission of performance bonds by contractors covering the maximum amount to be ordered under the contract;

- Contract bond at award covering the minimum guaranteed amount or total bid schedule (list of bid unit prices and quantities) and subsequent bonds on a work order basis; or
- Only bond each work order with no contract bond at award.

The crux of the issue revolves around tying up an IDIQ contractor's bonding capacity when there is no guarantee that the owner will be at risk for more than a single guaranteed minimum amount of construction placement. A recent study on performance bonding funded by FHWA (Kraft et al. 2014) found that small contractors and disadvantaged business enterprises generally had little net working capital and, as a result, were often not able to arrange bonding for projects. In addition, that study found that even when a small contractor could furnish the required bond, its bond premium could be as much as three times higher than an established contractor's premium, making it impossible to win a low-bid award (Kraft et al. 2014). The federal literature cited IDIQ contracting as an important tool for federal agencies and state agencies using federal-aid funding to meet their mandated small business goals because the work orders are typically less complex than a typical construction project and the repetitive nature of the delivery method allows the small business owner's project management team to leverage the experience gained on one work order to their advantage on the next (Alinger 2010).

This section presents and analyzes the opinions of different contract stakeholders obtained from the surveys, including one survey conducted with surety companies doing business in Minnesota. It is important to consider that most of these sureties also have business in other states. Additionally, 94% of 34 surety companies reported that they have furnished bonds for IDIQ contracts.

Figures 33–35 show the survey responses obtained from state DOTs, AGC/ARTBA contractors, and MnDOT's contractors. It can be noted that the question for contractors was stated differently than the way it was posed to DOT respondents. Unlike state DOTs, contractors were requested to select the least preferred alternatives. Because most survey participants from both groups of contractors did not provide their opinions for this question, it can be inferred that most contractors might not bid for IDIQ contracts if they were required to furnish a bond for the maximum contract amount. Conversely, most state DOTs appear to consider this scheme as the most suitable approach.

During the study conducted for MnDOT and in order to obtain better insight into this issue, survey responses were received from 39 representatives of surety companies doing business in Minnesota. Figure 36 shows the opinions of these sureties with regard to the suitability of each bond scheme. Unlike state DOTs, most sureties prefer a bond scheme in which a contract bond is provided at the time of award covering the minimum guaranteed amount with subsequent bonds

Which of the below performance bond schemes would be suitable for IDIQ contracting? (Check all that apply)

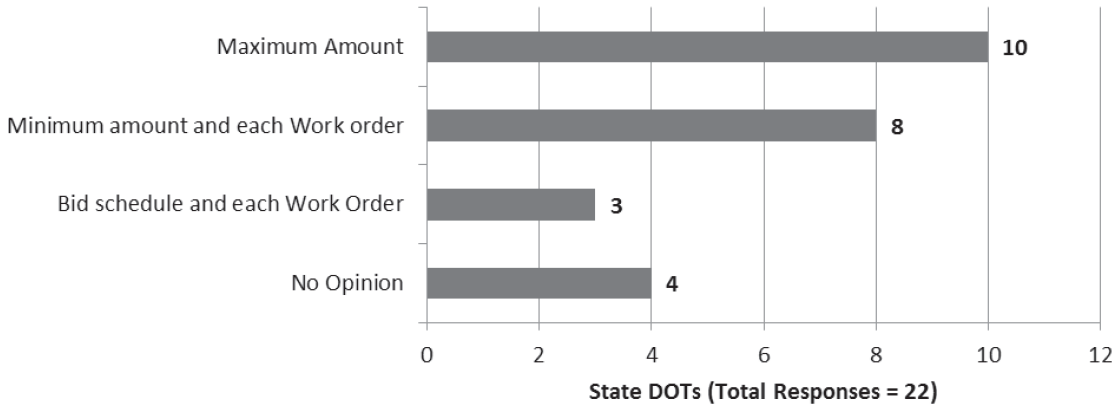


FIGURE 33 State DOTs—Suitable bond schemes.

Which of the below performance bond schemes would make it unlikely that your company would bid for an IDIQ contract? (Check all that apply)

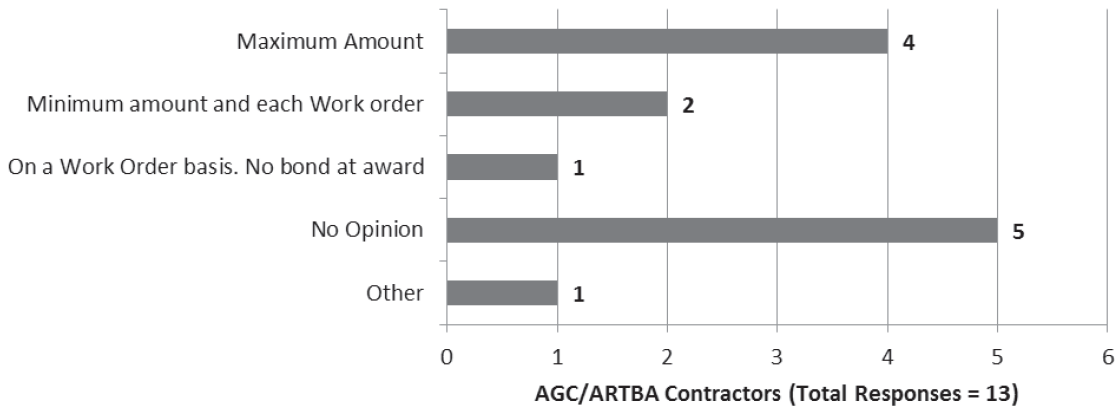


FIGURE 34 AGC/ARTBA contractors—Bond schemes.

Which of the below performance bond schemes would make it unlikely that your company would bid for an IDIQ contract? (Check all that apply)

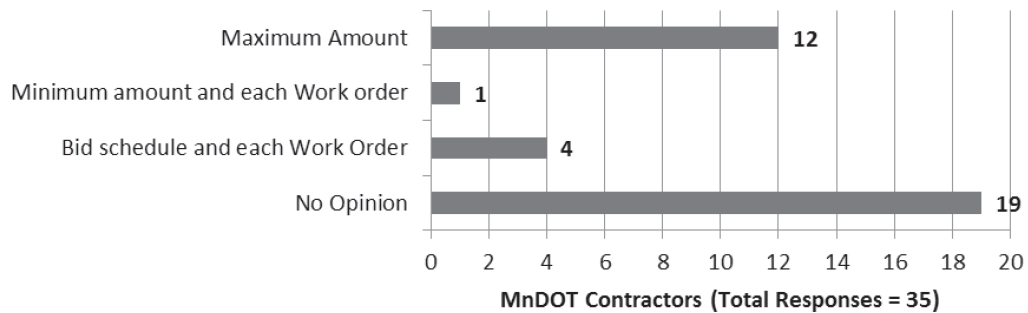


FIGURE 35 MnDOT contractors—Bond schemes.

Which of the below performance bonds schemes would be suitable for IDIQ contracting? (Check all that apply)

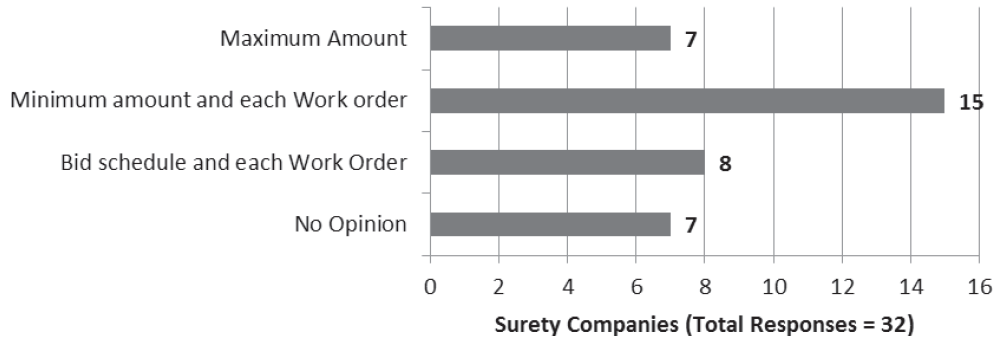


FIGURE 36 Surety companies—Bond schemes.

(once covered the minimum guaranteed amount) on a work order basis.

Several comments submitted by surety companies mentioned the impact that using bonds covering the maximum amount of the contract would represent for small contractors; 82% of the sureties indicated that this approach would significantly impact a contractor’s ability to bid for other contracts; having a higher impact on small contractors (Gransberg and Rueda 2014), validating the finding about small contractors in the FHWA performance bonding study cited earlier (Kraft et al. 2014).

In addition to the amounts covered by the bonds, some surety companies identified longer contract periods as a factor that may negatively impact a contractor’s ability to receive a bond. Some mentioned that IDIQ contracts for more than one or two years make bonding difficult for contractors. One oft-repeated comment found in this survey referred to the determination of maximum contract amounts by year, which is a practice used on FDOT DB-PB contracts.

Among the comments submitted by surety companies, there was one that proposed a different approach that is worthy of consideration when selecting a bond scheme. It consists of setting a fixed bond amount to cover the owner’s default exposure at any given time during the contract period. For example, if it is known that the contractor will not be performing, at any one time, work orders for more than \$500,000, regardless of the maximum amount of the contract, the agency could set a bond for \$500,000 or another amount large enough to cover this value (Gransberg and Rueda 2014). The FHWA performance bonding study found the default rate for DOT projects to average just 0.65%, and that average bond premiums for all U.S. contractors added 1.139% to the cost of every construction project (Kraft et al. 2014). In other words, given that the U.S. Census Bureau in 2014 estimated that public construction in 2013 was approximately \$270 billion, the tax payer paid about \$3 billion that year to be protected from an event that happens

less than 1% of the time. Therefore, an agency’s decision on how to approach performance bonding can potentially negatively impact small businesses in order to provide protection against a risk that is rarely realized. Thus, if a given IDIQ contract is intended to stimulate small business participation, minimizing the size of the required bond is in order to maintain the deepest possible pool of competitors.

The following statements summarize several oft-repeated comments submitted by surety companies with regard to IDIQ contracts.

- Agencies are to limit the contract period to one or two years or allow surety companies to furnish annual bonds.
- The contract includes maximum quantities of work (in dollars) to be assigned to contractors each year.
- Agencies are to establish a maximum value of work orders (in dollars) that the contractor may be performing at any one time.

SUMMARY

This chapter found that unlike multiple award contracts a single award approach permits a greater interaction between owners and contractors, allowing an early involvement of contractors in work order development procedures. This interaction is limited in multiple award contracts as a result of the implications of handling multiple contractors. However, the use of the latter eliminates the use of mobilization and escalation clauses since price proposals are submitted by contractors on a work order basis.

This chapter also highlights the risk associated with inappropriately sized work orders. It was found that the issuance of work orders smaller than the usual size of a traditionally procured contract for the same type of work may encourage contractors to submit higher than normal bid pricing. Likewise, work orders that are too large may prevent the agency from reasonably awarding future work.

INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACT EXAMPLES

INTRODUCTION

This chapter presents one federal and six state IDIQ contracts executed by different transportation agencies in the United States. Each case in this chapter was purposely selected to illustrate different approaches currently in use by public owners to procure construction and maintenance services. In addition, this chapter includes an analysis of a multiple award design IDIQ contract. These contracts represent the use of most of the key practices and procedures discussed throughout this report including:

- DBB and DB delivery methods;
- Single and multiple award contracts;
- Low-bid, QBS, and best-value contractor selection techniques;
- Unit price and lump sum payment provisions; and
- Project types from different work categories considered in this study; construction and maintenance (a focus of this report) and design services (not a focus of this report).

Five cases were previously developed by the authors for research conducted for MnDOT: New York State, Florida, Missouri, and Minnesota DOTs, and the CFLHD. Also, the New York State DOT's emergency bridge replacement IDIQ contract was included. This case was previously analyzed in *NCHRP Synthesis 438: Expedited Procurement Procedures for Emergency Construction Services* (Gransberg and Loulakis 2012), and the reader can refer to that document for additional detail if desired. Finally, a multiple award IDIQ contract executed by the South Carolina DOT to procure design services was added to this study.

SUMMARY OF CASE EXAMPLES

The primary aspects of these case examples are summarized in Table 23. All IDIQ contracts and the work order case example in this table are presented in detail in Appendix D.

Tables 24–28 present the advertise/award and work order development procedures implemented by each agency in those case examples for construction or maintenance services. This chapter does not present those procedures for Cases 6 and 7 because they correspond to the design services contract (not the focus of this synthesis) and the work order case study, respectively. However, they are further reviewed in Appendix D. Terminology used in the following tables is the same as that used in preceding chapters unless the authors are referring to a particular agency.

SUMMARY

A complete analysis of the case examples presented in this chapter led to the conclusion that once the IDIQ contract is awarded, the agency is able to use the contractor to furnish different preconstruction services at the work order level in much the same way as CMGC projects, which may result in better pricing because of more constructable designs. However, this appears to be restricted to single award IDIQ contracts. In addition, it was found that IDIQ contracting techniques allow agencies to improve their response capability under situations that require immediate action by the agency. This alternative contracting approach has proven to be an effective tool to make provisions in advance of anticipated contingency events. This was the primary reason that led some agencies mentioned in this chapter to implement these practices.

TABLE 23
SYNTHESIS CASE SUMMARIES

Agency (Case no.)	Case (IDIQ model)	Locations(s)	Minimum Guaranteed Value	Maximum Value	Advertise /Award (PDM)	Payment Provisions
Central Federal Lands Highway Division (1)	Roadway Surfacing, Resurfacing, and Repair (multiple award)	Northern California, Washington, Oregon, and Idaho	\$50,000 per awardee	\$35 million per awardee	RFP: One-step best-value (DBB)	Fixed price
New York State DOT (2)	Bridge Maintenance Work Various Routes (single award)	Broome, Chenango, and Tioga counties	\$50,000	\$1.2 million	IFB: Low-bid (DBB)	Fixed price
Florida DOT (3)	Design-Build Push-Button Contract (single award)	District 7	\$12.5 million	\$20 million	RFP: One-step best-value (DB)	Fixed price
Missouri DOT (4)	Asphalt Pavement Repair—Route I-55/ I-57 (single award)	Route I-55: Ste. Genevieve, Perry, Cape Girardeau, and Scott counties. Route I-57: Mississippi County	N/A	\$125,000	IFB: Low-bid (DBB)	Unit price
Minnesota DOT (5)	Noise Walls (single award)	Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington Counties	\$750,000	\$2.5 million	IFB: Low-bid (DBB)	Unit price
South Carolina DOT (6)	Bridge Design Engineering Services (multiple award)	Statewide	N/A	\$2.5 million per awardee	RFQ: One-step QBS	Cost-plus-award-fee lump sum unit price
New York State DOT* (7)	981G Ramapo River Bridge Replacement (single award)	Rockland County, New York	N/A (total cost = \$1.4 million)	N/A	N/A	Time and materials

*Work order case.
N/A = not applicable.

TABLE 24
CASE 1—ADVERTISE/AWARD AND WORK ORDER DEVELOPMENT PROCEDURES

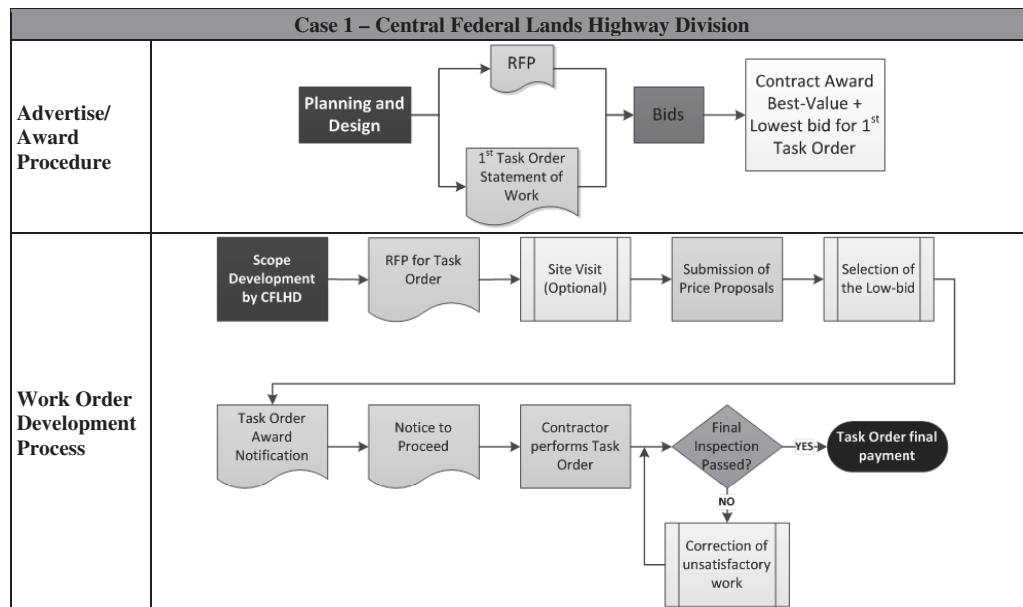
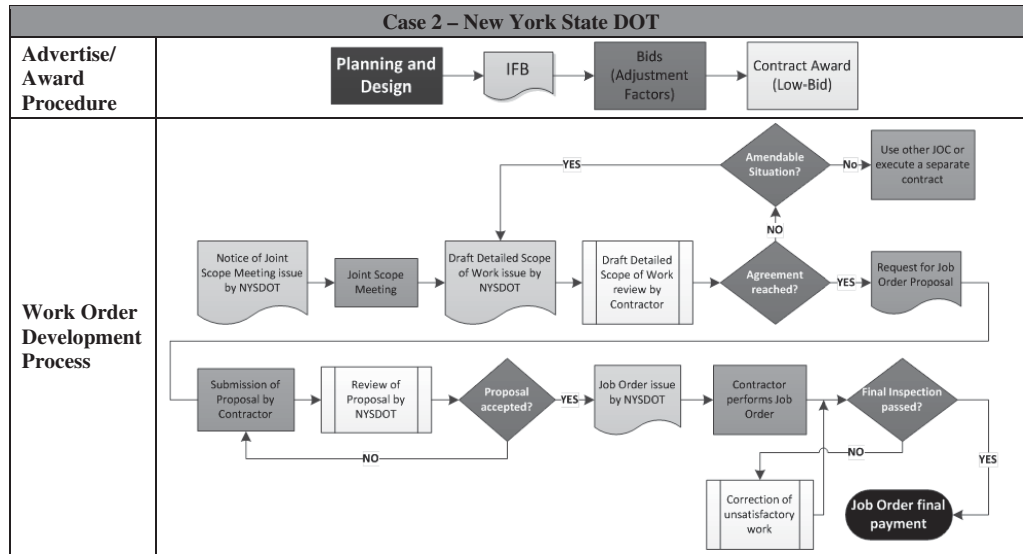


TABLE 25
CASE 2—ADVERTISE/AWARD AND WORK ORDER DEVELOPMENT PROCEDURES



JOC = job order contract.

TABLE 26
CASE 3—ADVERTISE/AWARD AND WORK ORDER DEVELOPMENT PROCEDURES

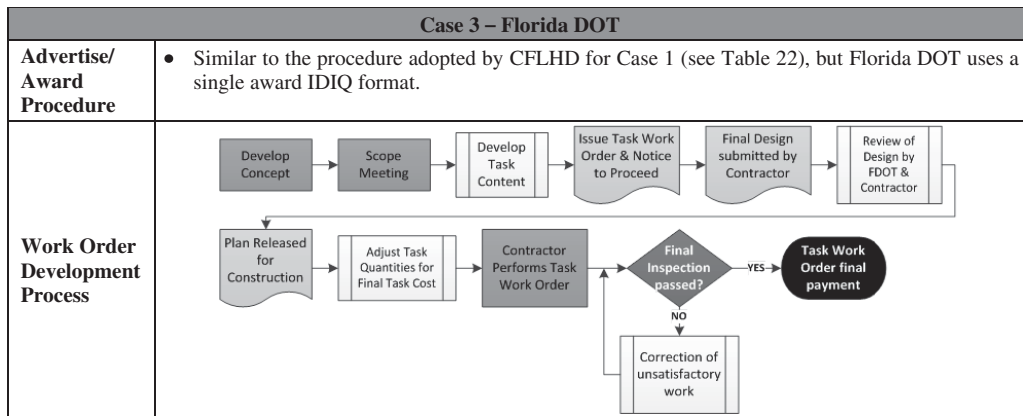


TABLE 27
CASE 4—ADVERTISE/AWARD AND WORK ORDER DEVELOPMENT PROCEDURES

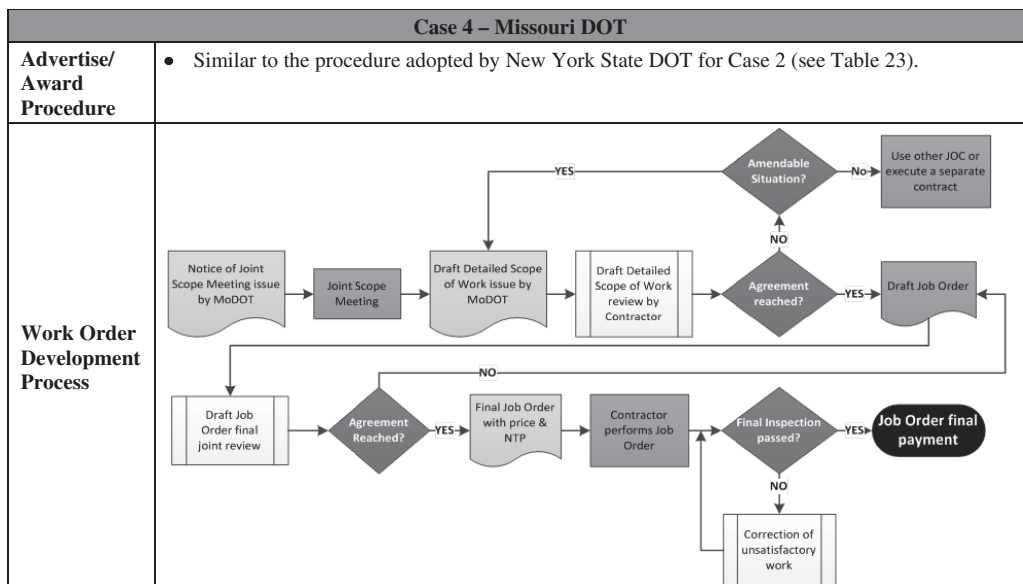
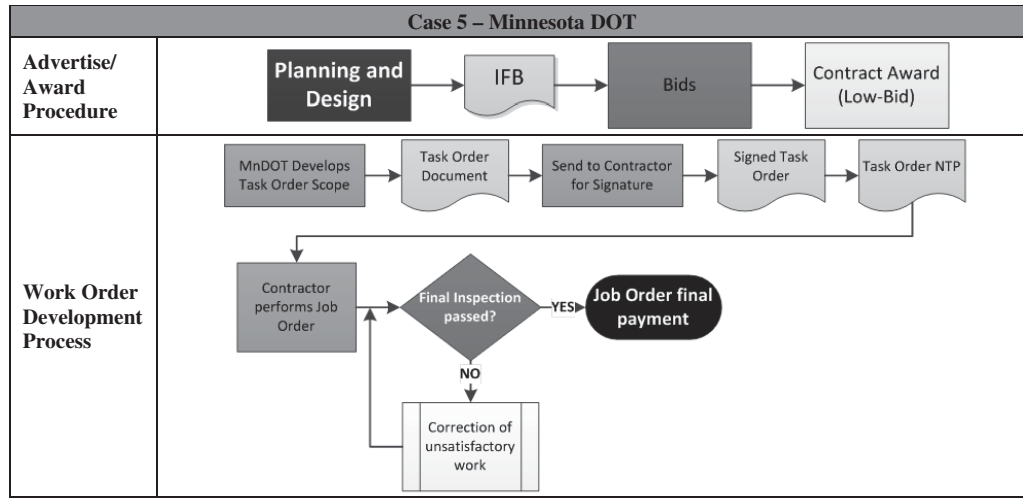


TABLE 28
 CASE 5—ADVERTISE/AWARD AND WORK ORDER DEVELOPMENT PROCEDURES



CONCLUSIONS

This chapter contains the conclusions and effective practices identified using intersections of trends found on two or more research tools. In addition, a better understanding of this contracting approach allowed the authors to synthesize mechanisms and alternatives to improve some of the Indefinite Delivery/Indefinite Quantity (IDIQ) practices mentioned throughout this report. Suggestions for future research presented in this chapter were stated based on revealed gaps in the body of knowledge. The following sections comprise all conclusions, effective practices, and suggestions for future research drawn from previous chapters. As a general note, this study found that IDIQ techniques increase agency capabilities to quickly procure a wide range of recurrent construction and maintenance services. With an appropriate selection of contracting procedures, agencies could successfully execute IDIQ contracts for almost all types of projects typically procured by state departments of transportation (DOTs).

Two major conclusions were reached. First, IDIQ contracting can be applied to any form of procurement that an agency may choose to secure the capacity to deliver needed services and products across the life cycle of a typical DOT project delivery program. The synthesis found evidence of successful application of IDIQ contracts in planning, design, construction, and maintenance. Therefore, IDIQs have the potential to become a useful tool in the DOT procurement toolbox.

The second major conclusion is that IDIQ contracts reduce the need to conduct multiple procurement actions to deliver technically similar repetitive projects to a single transaction. Upon award, the agency acquires the capacity to access contractor services by issuing individual work orders for each project. This capacity has been used by a number of DOTs as a means to efficiently obligate unused year-end funds to complete minor construction and maintenance backlog projects whose priority was too low to be funded in the fiscal year's budget. Thus, IDIQ contracts enhance the efficient use of available capital by creating a mechanism to quickly fund needed work. This is especially valuable in the event of an emergency because the IDIQ contractor is on board, selected on the basis of competitive pricing, and there is no need to gain authorization for expedited procedures or sole source procurements.

The remaining conclusions drawn from the analysis discussed in this synthesis report are as follows:

1. The federal government's experience employing IDIQ contracts has produced a defensible contract form and

associated procurement and administration processes as evidenced by the finding that the majority of IDIQ protests and claims are settled in favor of the government. Thus, the federal form can furnish a starting point from which a DOT can then tailor its own contract form to fit its state's statutes.

2. Concerns found in the literature regarding increased protest risk owing to the potential restriction of competition were proven to be unwarranted, because only five of 76 protests were based on a violation of the Competition in Contracting Act (i.e., the premise that competition was not full and open). Additionally, all five claims were denied. Therefore, the full and open competition that occurs in the pre-award phase appears to be viewed by industry as sufficient.
3. The use of IDIQ in conjunction with design-bid-build (DBB), design-build (DB), or construction manager/general contractor (CMGC) project delivery does not alter the fundamental structure of these delivery methods. The parameters dictated by these delivery methods are individually applied to the planning, design, and execution of each work order. Therefore, the advantages and disadvantages commonly attributed to the three project delivery methods are realized at the work order level.
4. The major benefits of IDIQ contracting perceived by state DOTs are in order of importance:
 - Reduction of project delivery period;
 - Flexibility in quantity of product and services purchased;
 - Flexibility in scheduling the delivery of the work order projects; and
 - The ability to use IDIQ contracts to provide a quick response during emergency situations.
5. High levels of uncertainty may not prevent contractors from bidding for IDIQ contracts, but may result in higher prices for owners.
6. IDIQ contracting procedures allow agencies to procure broad-scope projects for virtually all types of work that are a recurrent need for the owner. However, each procurement model will be constrained by agencies' procurement policies, procedures, and applicable regulations.
7. IDIQ contracting techniques provide owners with the capability to rapidly issue work orders without going through a complete procurement process, improving their capacity to respond to emergency situations, and enhancing their ability to efficiently use available year-end funding.

8. The use of multiple award IDIQ contracts with competitive work orders eliminates the need for mobilization and escalation clauses since contractors are usually required to bid current prices on each work order, including the price for mobilization for the specific work order site.
9. Not including escalation clauses in multi-year single award or multiple award contracts with non-competitive work orders may result in higher project costs for public owners given the contractors' need for larger contingencies in price proposals.
10. Small businesses' ability to bid for other contracts, or even the ability to participate in a given IDIQ contract, may be severely reduced when owners require contract bonds at award covering the maximum amount to be ordered under the contract.

EFFECTIVE PRACTICES

The effective practices identified from the analysis discussed in this synthesis report are as follows.

1. Streamlined IDIQ contracting procedures with minimum proposal submittal requirements reduce the cost to industry and expedite the procurement. Some authors and studies proposed the use of oral proposals and page limitations for submittal requirements that must remain in a written format. These simplified techniques could be used at either the contract or the work order level.
2. When implementing IDIQ, DOTs may want to consider conducting training sessions with in-house staff and pre-bid meetings with bidders to inform and instruct them about this alternative contracting approach.
3. Balancing the number of contractors in multiple award IDIQ contracts with the number of expected work orders to be issued under the contract gives those contractors a good opportunity to win work beyond a stated minimum, if any. The appropriate number of awardees is a function of project scope and complexity; expected number, frequency, and duration of work orders; and required resources for a contractor to perform all the types of work described in the contract documents.
4. Invitation for bids low-bid advertise/award procedures were found to be better suited to IDIQ construction and maintenance contracts.
5. Best-value selection procedures can be used as a risk mitigation strategy to ensure the selection of a contractor with the required technical and logistic skills for a reasonable price.
6. The advertisement of IDIQ contracts along with the statement of work for the first work order allows owners to conduct complete best-value selection procedures using the specifications and requirements of the first project to determine the technical capabilities of the contractor.
7. State DOTs' historical data play an important role when developing the list of pay items to be included in the solicitation documents. By reviewing similar projects, owners will get a better idea of the work items usually required to complete a particular project. Incomplete pay item lists may result in the need to conduct negotiations and issue change orders to add pay items and prices to the contract.
8. A strong relationship between bid quantities included in these solicitation documents, and the actual quantities of work expected to be performed for a typical work order throughout the contract, would facilitate the selection of the low bid on a single award IDIQ contract. If expected work orders are not fairly uniform, the work might be executed using a multiple award IDIQ contract or delivered using single-project contracting approaches.
9. Ideally, work orders are developed where they are neither so small that higher than normal bid pricing is triggered nor too large to prevent the agency from being able to award future work under the IDIQ contract because of funding constraints.
10. The use of single award IDIQ contracts offers owners the ability to create an interactive contracting environment in which contractors provide input to the work order development processes in much the same manner as CMGC contracts. This type of interaction is limited in multiple award contracts owing to the need to be equitable to the competing contractors in the IDIQ pool.
11. Cost-reimbursable compensation provisions allow owners to execute complex work orders when actual quantities of work to be performed are difficult to estimate.
12. Implementing IDIQ procedures based on a construction task catalog and adjustment factors bid by contractors improves the agency's budget control and discourages contractors from submitting unbalanced price proposals.
13. The inclusion of multiple mobilization pay items in single award IDIQ contracts, anticipating different potential case scenarios, provides agencies with greater flexibility to execute larger contracts covering more locations with a single solicitation.
14. "A × E bidding" is expected to increase the accuracy of price escalation methods as well as increase contractors' confidence in understandable, fair, and transparent escalation clauses, which may lead to lower contingencies in price proposals.
15. To facilitate bonding procedures and increase small business participation in IDIQ contracts, agencies might consider the following practices:
 - Limit the contract period to one or two years or allow surety companies to furnish annual bonds;
 - Establish maximum quantities of work (in dollars) to be assigned to contractors each year; and
 - Establish a maximum value of work orders (in dollars) that the contractor may be performing at any one time.

16. By allowing contractors to decide whether or not to modify unit prices on an annual basis in accordance with the Construction Cost Index published by the *Engineering-News Record*, the New York State DOT removes from contractors the risk related to disadvantageous adjustments.
17. The procurement of multiple projects under a single work order, as undertaken by the Florida DOT, allows the contractor to make better use of its resources reducing overhead costs that would be transferred to the owner.
18. When developing the evaluation plan for an IDIQ contract that replaces an expiring IDIQ contract, the agency might consider the potential impact that the evaluation panel member's personal experience with the incumbent contractor may have on their decision. The plan might include a written caution to the evaluators to base their rating on the information contained in the written proposals and not allow any personal experience to bias their ratings one way or the other. This will be particularly critical to avoid a protest of the award if the incumbent has had performance issues during the current contract.
19. The inclusion of project size limitations in solicitation documents, in dollars and/or jobsite dimensions, may help agencies to easily identify project candidates. It also may give contractors additional information to prepare more responsive price proposals.
20. Identifying potential projects to be performed in the IDIQ RFP/IFB (Request for Proposals/Invitation for Bids) allows competing contractors to prepare more responsive proposals, reducing the level of uncertainty and the need for large contingencies in these proposals (when price is used as a selection factor). In addition, it helps agencies to conduct more efficient pre-award procedures.

FUTURE RESEARCH NEEDS

This synthesis identified four areas where future research would add value to the transportation procurement toolbox and assist transportation agencies in realizing the potential benefits discussed in this report. The remainder of this section is devoted to formulating concepts for research to advance the use and value of IDIQ contracting on highway projects. Standard AASHTO Research Needs Statements for each potential project are found in Appendix F and are provided for the convenience of interested AASHTO members to furnish to their organizations in support of the study.

First, it was determined that the great diversity of IDIQ practices currently in use provides an opportunity for the

public owner to utilize a wide range of alternatives to address specific issues within their capital and maintenance programs. Further research could address the development of an integral framework that optimizes the combination of contracting procedures covering the entire project development life cycle for an agency's annual program. The framework would coordinate both pre-award and post-award activities, increasing consistency and communication between these two project phases. The principal characteristic expected from the framework would be flexible enough to prescribe the use of IDIQ contracts in conjunction with single-project delivery methods in accordance with the policies, regulations, and contracting philosophy of each agency.

Next, the apparent success of multiple award IDIQ contracts with competitive work orders in the federal sector and the clear preference given by the Federal Acquisition Regulation (FAR) to this approach, suggest that future research could be conducted to tailor multiple award IDIQs for implementation by state DOTs. The research would produce a guidebook on implementing multiple award IDIQs for standard types of roadway, bridge, and drainage projects. The value of the work would be demonstrated in the ability to demonstrate to the public that the maximum amount of competition was being encouraged.

In addition, there is a need for research on the use of construction task catalogs and adjustments factors and their impact on IDIQ contracting in the highway sector. Although this method is being used by several agencies, there is little information about it in the literature. Some specific aspects of this method that could be added in future research include: advantages, limitations, cost of developing and maintaining these catalogs, and their suitability for use in multiple award IDIQ contracts. It is anticipated that the research would focus on using DOT bid tabulations as the primary data source for local pricing data and that the research would produce guidance for adapting that rich source of data in order to produce a viable catalog that is acceptable to both the owner and IDIQ contractors. It is also possible that a similar catalog could be developed for IDIQ design contracts.

Finally, the wide use of design and research IDIQ contracts by state transportation agencies and the contrasting lack of research on this matter suggest that it may be a valuable future research topic. The principal gaps of knowledge that could be addressed by this research are related to the identification of effective practices, advantages and disadvantages, and types of professional services best suited for IDIQ contracting.

GLOSSARY

- Advertise:** “To make a public announcement of the intention to purchase goods, services or construction with the intention of increasing the response and enlarging the competition. The announcement must conform to the legal requirements imposed by established laws, rules, policies and procedures to inform the public” (Shields 1998).
- Construction manager/general contractor IDIQ (CMGC-IDIQ):** IDIQ contract where the contractor furnishes preconstruction services during design and construction services on each work order.
- Design-build IDIQ (DB-IDIQ):** IDIQ contract where the contractor furnishes both the design and construction services on each work order.
- IDIQ contract scope:** The description of work to be done under an IDIQ contract. These contracts are most often used to procure services of a repetitive nature and whose scope is quite narrow and clear, allowing a greater control over pricing. For example, an IDIQ contract to complete an indefinite amount of pavement overlay is a typical scope limitation for a single award IDIQ contract.
- Invitation for bids (IFB):** “A solicitation for offers under sealed bidding” (Shields 1998).
- Multiple award IDIQ:** “A single contract is advertised and a pool of qualified contractors is selected. Only those selected are subsequently allowed to bid on work orders. In most cases the work orders are awarded to the lowest bidder among the contractors in the pool” (Rueda and Gransberg 2014a).
- Procurement:** “The combined functions of purchasing, inventory control, traffic and transportation, receiving, inspection, store keeping, and salvage and disposal operations” (Minnesota DOT 2007). “All stages involved in the process of acquiring supplies or services, beginning with the determination of a need for supplies of services and ending with contract completion or closeout” (Shields 1998).
- Request for Proposals (RFP):** “A solicitation for offers under negotiation procedures” (Shields 1998).
- Request for Qualifications (RFQ):** “The document issued by the Owner prior to the RFP that typically: describes the project in enough detail to let potential proposers determine if they wish to compete; and forms the basis for requesting Qualifications Submissions in a ‘two-phase’ or prequalification process” (DBIA 2009).
- Single award IDIQ:** “A single contract is advertised and awarded to a single contractor who then is awarded work orders based on the pricing furnished in the initial bid package” (Rueda and Gransberg 2014a).
- Single work order IDIQ:** “A single contract is awarded to [a] single contractor. Once the need to issue the work arises, the contractor then performs the desired services or furnishes the requisite supplies [a single work order issued during the contract period]” (Rueda and Gransberg 2014a).
- Solicitation:** “The process used to communicate procurement requirements and to request responses from interested vendors. A solicitation may be, but is not limited to, a request for bid and request for proposal” (Minnesota DOT 2007).
- Work order:** Every project to be executed within an IDIQ contract is developed under the issuance of a work order. A work order becomes the contract document that determines location, contract time, and scope of work. Moreover, a work order outlines all required pay items, quantities, and unit prices (MnDOT 2014). Also termed task, job, or service order.

ABBREVIATIONS AND ACRONYMS

ADOT	Arizona Department of Transportation
AGC	Associated General Contractors of America
ARTBA	American Road & Transportation Builders Association
BLS	Bureau of Labor Statistics
Caltrans	California Department of Transportation
CCI	Construction Cost Index
CFLHD	Central Federal Lands Highway Division
CICA	Competition in Contracting Act
CMGC	Construction manager/general contractor
DB	Design-build
DBB	Design-bid-build
DelDOT	Delaware Department of Transportation
DOT	Department of transportation
ENR	<i>Engineering News-Record</i>
FAR	Federal Acquisition Regulation
FASA	Federal Acquisition Streamlining Act
FDOT	Florida Department of Transportation
GMP	Guaranteed maximum price
GSA	General Services Administration
IDIQ	Indefinite Delivery/Indefinite Quantity
IFB	Invitation for bids
MATOC	Multiple Award Task Order Contract
MnDOT	Minnesota Department of Transportation
MoDOT	Missouri Department of Transportation
NYSDOT	New York State Department of Transportation
PPI	Producer Price Index
QBS	Qualifications-based selection
RFP	Request for Proposals
RFQ	Request for Qualifications
SCDOT	South Carolina Department of Transportation
VTrans	Vermont Agency of Transportation

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APPENDIX A

Survey Questionnaire and Results—State DOTs

Questionnaire for Web-based Surveys NCHRP Synthesis Topic 45-09: Indefinite Delivery/Indefinite Quantity Practices

Dear State Construction and/or Maintenance Engineer:

The Transportation Research Board (TRB) is preparing a synthesis on Indefinite Delivery/Indefinite Quantity (IDIQ) Contracting Practices. This is being done for NCHRP, under the sponsorship of the American Association of State Highway and Transportation Officials, in cooperation with the Federal Highway Administration.

The purpose of this questionnaire is to identify state highway agency policies and procedures for delivering design, construction, design-build (DB), and maintenance projects using IDIQs. The results of the study will be a synthesis of highway agency procurement procedures for employing IDIQs to secure design, construction, DB, and maintenance services. Its specific focus is on the specific policies and contractual content used during procurements that include IDIQs. It seeks to identify successful approaches to managing risks in the pre-award phases of a project's life cycle.

This questionnaire is being sent to members of the AASHTO Highway Subcommittees on Construction and Maintenance. Your cooperation in completing the questionnaire will ensure the success of this effort. **If you are not the appropriate person at the DOT to complete this questionnaire, please forward it to the correct person.** As a result of this questionnaire we are expecting to collect only one response per agency.

Please complete and submit this survey by February 14, 2014. We estimate that it should take approximately 15 minutes to complete. If you have any questions, please contact our principal investigator Dr. Doug Gransberg by phone: [515-294-1703](tel:515-294-1703) or email: dgran@iastate.edu. Any supporting materials can be sent directly to Dr. Douglas Gransberg by email or at the postal address shown at the end of this page.

QUESTIONNAIRE INSTRUCTIONS

1. To view and print the entire questionnaire, Click on the following link and print using “control p.”
NCHRP Synthesis Topic 45-09: Indefinite Delivery/Indefinite Quantity
2. To save your partial answers and complete the questionnaire later, click on the “Save and Continue Later” link on the top of your screen. A link to the incomplete questionnaire will be emailed to you from *SurveyGizmo*. To return to the questionnaire later, open the email from *SurveyGizmo* and click on the link. We suggest using the “Save and Continue Later” feature if there will be more than 15 minutes of inactivity while the survey is opened, as some firewalls may terminate due to inactivity.
3. To pass a partially completed questionnaire to a colleague, click on the on the “Save and Continue Later” link on the top of your screen. A link to the incomplete questionnaire will be emailed to you from *SurveyGizmo*. Open the email from *SurveyGizmo* and forward it to a colleague.
4. To view and print your answers before submitting the survey, click forward to the page following question 35. Print using “control p.”
5. To submit the survey, click on “Submit” on the last page.

Thank you very much for your time and expertise.

Doug Gransberg, PhD, PE
Civil, Construction, and Environmental Engineering
Iowa State University
494 Town Engineering Building
Ames, IA 50011

Voice: [515-294-1703](tel:515-294-1703) Fax: [515 294-3845](tel:515-294-3845)
Email: dgran@iastate.edu

DEFINITIONS:

The following definitions are used in conjunction with this questionnaire:

- IDIQ contract: A contract that provides for an indefinite quantity of design, construction, and/or maintenance services for a fixed time. They are used when the agency can't determine, above a specified minimum, the precise quantities of supplies or services that the agency will require during the contract period.
- IDIQ contract scope: These contracts are most often used to procure services of a repetitive nature and whose scope is quite narrow. For example, an IDIQ contract to complete an indefinite amount of pavement overlay is a typical scope limitation for a single award IDIQ.
- Task Order: A contract document to execute a specified scope of services within a specified period of time. Typically IDIQ contracts contemplate awarding more than one task order. Also termed: work order, job order, and other terms.
- Single Task Order IDIQ: A single contractor is awarded a single task order to complete at the owner's direction sometime during the contract period. For example, the Florida DOT issues these for hurricane debris removal in advance of the hurricane season to permit a rapid response during the emergency.
- Single Award IDIQ: A single contractor is awarded a contract that may include multiple task orders that will be delivered during the contract period.
- Multiple Award IDIQ: Several different contractors are selected to compete for multiple task orders during the contract period.
- Design-build IDIQ: An IDIQ contract where the contractor furnishes both the design and construction services on each Task Order.

1. Please provide the following contact information:

Name: _____ Title: _____
 Phone Number: _____ Email: _____
 U.S. state in which you are employed: _____

2. You are employed by what type of organization?

- State Department of Transportation
 Federal Agency; Name of Agency: _____
 Other Public Transportation Agency; Name of Agency: _____
 Other; Please Describe: _____

3. What group/section do you work in? (Check all that apply.)

- Design group/section Construction group/section
 Operations group/section Maintenance group/section
 Alternative project delivery group/section Materials group/section
 Contracts/procurement group/section Other: _____

4. The following types of contracts are different names for IDIQ contracting; please check those you knew before this survey or you are familiar with. (Check all that apply.)

For purposes of this survey the term IDIQ will be used to refer to any type of contract mentioned below.

- Indefinite Delivery/Indefinite Quantity (IDIQ) Contract Task Order Contract
 Job Order Contract Delivery Order Contract On-Call Contract
 Push-button Contract None Other: _____

5. What is your agency policy regarding IDIQ contracting?*

- We have used or are currently using IDIQ contracting
 We are allowed to use IDIQ contracting, but have never used it
 We are not allowed to use IDIQ contracting Don't know

NOTE: If your agency USES IDIQ contracting please skip to question 8.

6. What project delivery methods is your organization allowed to use for typical projects? (Check all that apply.)

	Typical Project
Design-Bid-Build	<input type="checkbox"/>
CM-at-Risk or Construction Manager General Contractor	<input type="checkbox"/>
Design-Build	<input type="checkbox"/>

7. What procurement methods is your organization allowed to use for typical projects? (Check all that apply.)

	Typical Project	IDIQ Project
Low Bid	<input type="checkbox"/>	<input type="checkbox"/>
Best Value	<input type="checkbox"/>	<input type="checkbox"/>
Lowest Multiplier (Adjust Factor)	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: Please skip to question 36 (regardless of your answer in the previous question)

8. On average, how many new IDIQ contracts does your agency award each year?

- None 1-2 3-5 6-10 >10

9. According to the principal location(s) of a typical IDIQ contract, how would you classify these contracts? (Check all that apply.)

- City-wide County-wide District-wide
 State-wide Don't know Other: _____

What work types does your agency use IDIQ contracts for? (Check all that apply.)

10. Design Services:

- Intelligent Transportation Systems (ITS) Traffic signalization projects
 Bridge design Roadway design
 None Other: _____

11. Construction Services:

- Hazardous waste treatment, mitigation, removal Environmental mitigation
 Erosion control/stormwater mitigation Resurfacing
 ADA-related improvements (sidewalk ramps, etc.) Landscaping
 Bike lanes, sidewalks, transportation enhancement projects Traffic signalization
 Roadway safety improvements None
 Other: _____

12. Preventive maintenance/repair:

- Bridge repair/preservation Roadway repair/preservation
 Drainage maintenance Rest area improvements
 Pavement markings None
 Roadside safety hardware repair/preservation (e.g., guardrail, impact attenuator repair)
 Other: _____

13. From the following list, please check those advantages that you have observed/perceived in IDIQ over traditionally procured contracts. Please check the most important advantage in the last column.

	Advantages
1. Reduce/compress/accelerate project delivery period	<input type="checkbox"/>
2. Increase agency control over budget	<input type="checkbox"/>
3. Increase quality	<input type="checkbox"/>
4. Encourage innovation	<input type="checkbox"/>
5. Facilitate value engineering	<input type="checkbox"/>
6. Encourage price competition	<input type="checkbox"/>
7. Increase Disadvantaged Business Enterprise and small business participation	<input type="checkbox"/>
8. Reduce preconstruction costs	<input type="checkbox"/>

9. Reduce risk related to contractors poor performance	<input type="checkbox"/>
10. Optimize use of agency resources	<input type="checkbox"/>
11. Funding flexibility	<input type="checkbox"/>
12. Flexibility in delivery scheduling	<input type="checkbox"/>
13. Usefulness in emergency situations	<input type="checkbox"/>
14. Reduced agency staffing requirements	<input type="checkbox"/>
15. Limited owner's commitment (contractual minimum quantity)	<input type="checkbox"/>
16. Ability to select multiple firms under a single solicitation	<input type="checkbox"/>

14. From the advantages listed in the previous question, please indicate the one that you consider the MOST important.

- 1. Reduce/compress/accelerate project delivery period
- 2. Increase agency control over budget
- 3. Increase quality
- 4. Encourage innovation
- 5. Facilitate value engineering
- 6. Encourage price competition
- 7. Increase Disadvantaged Business Enterprise and small business participation
- 8. Reduce preconstruction costs
- 9. Reduce risk related to contractors poor performance
- 10. Optimize use of agency resources
- 11. Funding flexibility
- 12. Flexibility in delivery scheduling
- 13. Usefulness in emergency situations
- 14. Reduced agency staffing requirements
- 15. Limited owner's commitment (contractual minimum quantity)
- 16. Ability to select multiple firms under a single solicitation

15. What project delivery methods is your organization allowed to use for typical versus IDIQ projects? (Check all that apply.)

	Typical Project	IDIQ Project
DBB	<input type="checkbox"/>	<input type="checkbox"/>
CM-at-Risk or CMGC	<input type="checkbox"/>	<input type="checkbox"/>
DB	<input type="checkbox"/>	<input type="checkbox"/>

16. What procurement methods is your organization allowed to use for typical versus IDIQ projects? (Check all that apply.)

	Typical Project	IDIQ Project
Low Bid	<input type="checkbox"/>	<input type="checkbox"/>
Best Value	<input type="checkbox"/>	<input type="checkbox"/>
Lowest Multiplier (Adjust Factor)	<input type="checkbox"/>	<input type="checkbox"/>

17. Does your agency have a manual or document that specifically describes the procedures to be used with IDIQ projects?

Yes. Please add the URL where it can be accessed or email Dr. Gransberg at dgran@iastate.edu so he can arrange to get a copy: _____; No

18. How does your local competitive bidding statutes impact the use of IDIQs by your agency?

- No impact, we are able to utilize IDIQs without restriction.
- Minimal impact, we are able to utilize IDIQs on selected types of projects.
- Some impact, we are only able to award a specific number of IDIQs each year.
- Major impact, we are only able to award a specific number of IDIQs each year on selected types of projects.

19. How do you advertise and award IDIQ contracts?

	Design	Construction	Design-Build	Maintenance
IFB, full open competition, low bid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IFB, competition restricted to prequalified entities, low bid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1- step full open competition RFQ, QBS, no price competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-step full open competition RFP, includes qualifications, technical, and price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-step full open competition, RFQ/RFP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-step competition restricted to prequalified entities RFQ, QBS, no price competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-step competition restricted to prequalified entities RFP, includes qualifications, technical, and price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-step competition restricted to prequalified entities, RFQ/RFP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multiple firms selected, low bid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multiple firms selected, RFQ, QBS, no price competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole source	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. If your agency uses unit prices in selection procedures to award IDIQ contracts, how are bid quantities determined?

- Total estimated quantities for the entire contract
- Estimated quantities for a typical Task Order
- Standard bid quantities for all IDIQ contracts
- Doesn't use unit prices
- Don't know
- Other: _____

21. Have you had a protest of an award an IDIQ contract?

- Yes
- No
- Don't Know

NOTE: If no or don't know, please skip to question 24.

22. What was the basis of the protest?

- Please describe: _____
- Don't know

23. What was the result of the protest?

- Protest was upheld
- Protest was overturned
- Protest was dropped
- Don't know

Comments: _____

24. When awarding Multiple Award IDIQ contracts, how are task orders awarded? (Check all that apply.)

- We don't use multiple award IDIQ contracts
- To the firm that provides the lowest responsive bid price for a given task order
- To the firm that provides the lowest multiplier or bid adjustment factor(s) for a given task order
- To the firm that bid the lowest unit prices for a given task (unit prices bid once when awarding the contract)
- To the firm that has best experience and the lowest bid prices for a given task order
- By geographic area
- By availability
- Don't know
- Other: _____

25. Does your agency use a construction task catalogue in IDIQ contracting? It includes descriptions, units of measurement, and unit prices for all tasks expected to be performed under the contract.

- Yes. Please provide a brief description of how is this catalog developed, used, and updated:
- No

26. Rate the following factors as to importance to the success of the IDIQ contract at achieving a fair and equitable price during the procurement process.

	Essential	Important	Not Important	Don't Know
Agency buy-in to the IDIQ process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industry buy-in to the IDIQ process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incentives/disincentive schemes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance bond	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well-defined task order scope of work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to award to the low bidder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to use a construction task catalog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guaranteed minimum value of task orders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System to escalate unit prices in the out-years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to measure the benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Independent technical review of DB IDIQ designs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to stop issuing further task orders if contractor performance is poor or unsatisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to have more than one contractor and competitive bids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27. Does your agency currently have a contract document that was specifically developed for projects incorporating IDIQs?

- Yes. Please add the URL where it can be accessed or email Dr. Gransberg at dgran@iastate.edu so he can arrange to get a copy: _____
- No
- Don't Know

NOTE: If no or don't know, please skip to question 29

28. Please indicate the differences between an IDIQ contract form and a typical contract form.

29. What type of payment provisions are contained in your typical agency IDIQ contracts? (Check all that apply.)

- Lump sum Unit price
- Cost reimbursable
- Single contract that incorporates a combination of one or more of the above
- Other: _____

30. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following methods for compensating the contractor for mobilization based on their suitability for IDIQ contracts from 1 to 4 with 1 being the most suitable. Put 0 (zero) in those options that you consider not suitable at all, or repeat the number in options that you consider equally suitable.

	1	2	3	4	0
Option 1. Fixed percentage of the construction cost stated by the DOT and applied to each Task Order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 2. Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 3. Fixed price bid by contractors to be used on each Task Order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 4. No mobilization. Mobilization expenses are included in the bid items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31. Please rate the following methods (from owner perspective) for compensating the contractor for mobilization (same options as previous question) in relation to the PERCEIVED RISK from reimbursing to contractors the actual mobilization cost and in comparison with traditional low bid contracting methods. Scale 1–3:

- (1) Lower than traditional contracting methods
- (2) Same as traditional contracting methods
- (3) Higher than traditional contracting methods.

	1	2	3	No Opinion
Option 1. Fixed percentage of the construction cost stated by the DOT and applied to each Task Order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 2. Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 3. Fixed price bid by contractors to be used on each Task Order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 4. No mobilization. Mobilization expenses are included in the bid items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following escalation methods to adjust unit prices over time based on their suitability for IDIQ contracts from 1 to 7 with 1 being the most suitable. Put 0 (zero) in those options that you consider not suitable at all, or repeat the number in options that you consider equally suitable.

	1	2	3	4	5	6	7	0
Option 1. Fixed annual percentage stated by the DOT to adjust all bid items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCI).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 4. Using a regional index (by district or similar) developed and kept by using DOT past bids.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 5. Using a state index by category developed and kept by using DOT past bids (asphalt, concrete, structures, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 6. Using an index by pay item. Measure the change of a pay item by using DOT past bids for that or similar pay items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. Please rate the following escalation methods to adjust unit prices over time (same options as previous question) in relation to the PERCEIVED RISK from obtaining fair unit prices for future contracting periods and in comparison with traditional low bid contracting methods. Scale 1–3:

- (1) Lower than traditional contracting methods; (2) Same as traditional contracting methods; (3) Higher than traditional contracting methods.

	1	2	3	No Opinion
Option 1. Fixed annual percentage stated by the DOT to adjust all bid items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCD).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 4. Using a regional index (by district or similar) developed and kept by using DOT past bids.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 5. Using a state index by category developed and kept by using DOT past bids (asphalt, concrete, structures, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 6. Using an index by pay item. Measure the change of a pay item by using DOT past bids for that or similar pay items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34. Based on your knowledge and experience related to IDIQ contracting; which of the below performance bond schemes would be the most suitable for IDIQ contracting. (Check all that apply.)

- Contract bond at award covering the maximum amount to be ordered under the contract.
- Contract bond at award covering the minimum guaranteed amount and subsequent bonds on each subsequent task order.
- Contract bond at award covering the contract bid schedule (list of bid unit prices and quantities) and subsequent bonds on a task order basis.
- No Opinion

35. Would you be willing to participate in a phone interview to collect a case study of your agency's IDIQ process?

- Yes. Please provide an email address for a point of contact:
- No

36. Please provide any additional information, comment, or question you may have about IDIQ contracting (i.e., agency report with quantifiable savings observed when using IDIQ contracting, biggest challenges/problems of using IDIQ contracting).

General Survey Results

Surveys were chosen to identify state highway agency policies and procedures for the implementation of IDIQ Contracting. A cross-sectional survey design was utilized. The population for this study is the State Department of Transportation. The sample for the study consists of employees working at DOTs during the year 2014 who are involved in the procurement of this contract delivery method.

A web-based questionnaire was developed, using an online survey tool. The survey was pilot tested for functionality and ease of use by sending it to the highway agency panel members before being sent out to participants. The survey was administered online to all 50 DOTs and District of Columbia DOT during the months of January and February 2014.

Details of the survey mode are listed below:

- First wave: The employee was sent an email incorporating the cover letter that described the survey's purpose requesting their participation and a link to a web-survey.
- Second wave: After sending the first email, one week later, a follow-up email was sent to non-respondents, emphasizing the importance of their participation and requesting their response.
- Third wave: Non-respondents were re-contacted by email and phone this time, requesting their participation.

Survey Instrument

The survey consisted of 36 questions regarding general information of participants and IDIQ use, IDIQ procurement policies and procedures, and IDIQ postaward administration practices. The survey was emailed to 50 DOTs and the District of Columbia DOT. A total of 43 surveys were received, yielding an 84% response rate.

These responses are presented below.

Survey Responses—State DOTs

1. U.S. state in which you are employed:

State	Responses	State	Responses
Alabama	X	Montana	X
Alaska	0	Nebraska	X
Arizona	X	Nevada	X
Arkansas	X	New Hampshire	X
California	X	New Jersey	0
Colorado	X	New Mexico	X
Connecticut	X	New York	X
Delaware	X	North Carolina	X
District of Columbia	X	North Dakota	X
Florida	X	Ohio	X
Georgia	X	Oklahoma	X
Hawaii	0	Oregon	X
Idaho	X	Pennsylvania	X
Illinois	X	Rhode Island	0
Indiana	X	South Carolina	0
Iowa	X	South Dakota	X
Kansas	0	Tennessee	X
Kentucky	X	Texas	X
Louisiana	0	Utah	X
Maine	X	Vermont	X
Maryland	X	Virginia	X
Massachusetts	X	Washington	X
Michigan	X	West Virginia	X
Minnesota	X	Wisconsin	X
Mississippi	0	Wyoming	X
Missouri	X		
Montana	X		

Total Responses = 43

2. You are employed by what type of organization? (District of Columbia DOT did not answer this question.)

Value	Count	Percent
State Department of Transportation	42	100.0%
Federal Agency; Name of Agency:	0	0.0%
Other Public Transportation Agency; Name of Agency:	0	0.0%
Other; Please Describe	0	0.0%
Total	42	

3. What group/section do you work in? (Check all that apply.)

Value	Count	Percent
Design group/section	6	14.3%
Construction group/section	25	59.5%

Value	Count	Percent
Operations group/section	4	9.5%
Maintenance group/section	14	33.3%
Alternative project delivery group/section	8	19.1%
Materials group/section	4	9.5%
Contracts/procurement group/section	14	33.3%
Other, Please specify:	2	4.8%

Total Responses = 46

4. The following types of contracts are different names for IDIQ contracting; please check those you knew before this survey or you are familiar with. (Check all that apply.)

Value	Count	Percent
Indefinite Delivery/Indefinite Quantity (IDIQ) Contract	19	50.0%
Task Order Contract	21	55.3%
Job Order Contract	21	55.3%
Delivery Order Contract	1	2.6%
On-Call Contract	21	55.3%
Push-button Contract	5	13.2%
None	1	2.6%
Other, Please specify:	7	18.4%

Total Responses = 38

5. What is your agency policy regarding IDIQ contracting?

Value	Count	Percent
We have used or are currently using IDIQ contracting	36	83.7%
We are allowed to use IDIQ contracting, but have never used it	3	7.0%
We are not allowed to use IDIQ contracting	2	4.7%
Don't know	2	4.7%
Total	43	

6. What project delivery methods is your organization allowed to use for typical projects? (Check all that apply.)

Value	Count
DBB	12
CM-at-Risk or CMGC	6
DB	7
Other	1

*Other: Competitive Bidding.

7. What procurement methods is your organization allowed to use for typical projects? (Check all that apply).

Value	Count
Low Bid	14
Best Value	3
Lowest Multiplier (Adjust. Factor)	0
A+B	1
Lowest Cost and Time for DB	1

8. On average, how many new IDIQ contracts does your agency award each year?

Value	Count	Percent
1-2	3	11.1%
3-5	5	18.5%
6-10	3	11.1%
>10	15	55.6%
Don't know	1	3.7%
Total	27	

9. According to the principal location(s) of a typical IDIQ contract, how would you classify these contracts?

Value	Count	Percent
City-wide	1	3.7%
County-wide	5	18.5%
District-wide	18	66.7%
State-wide	19	70.4%
Don't know	0	0.0%
Other	4	14.8%

Total Responses = 27

What work types does your agency use IDIQ contracts for? (Check all that apply)

10. Design Services: Total Responses = 37

Value	Count	Percent
Intelligent Transportation Systems (ITS)	12	32.4%
Traffic signalization projects	12	32.4%
Bridge design	13	35.1%
Roadway design	12	32.4%
None	7	18.9%
Other	18	48.7%

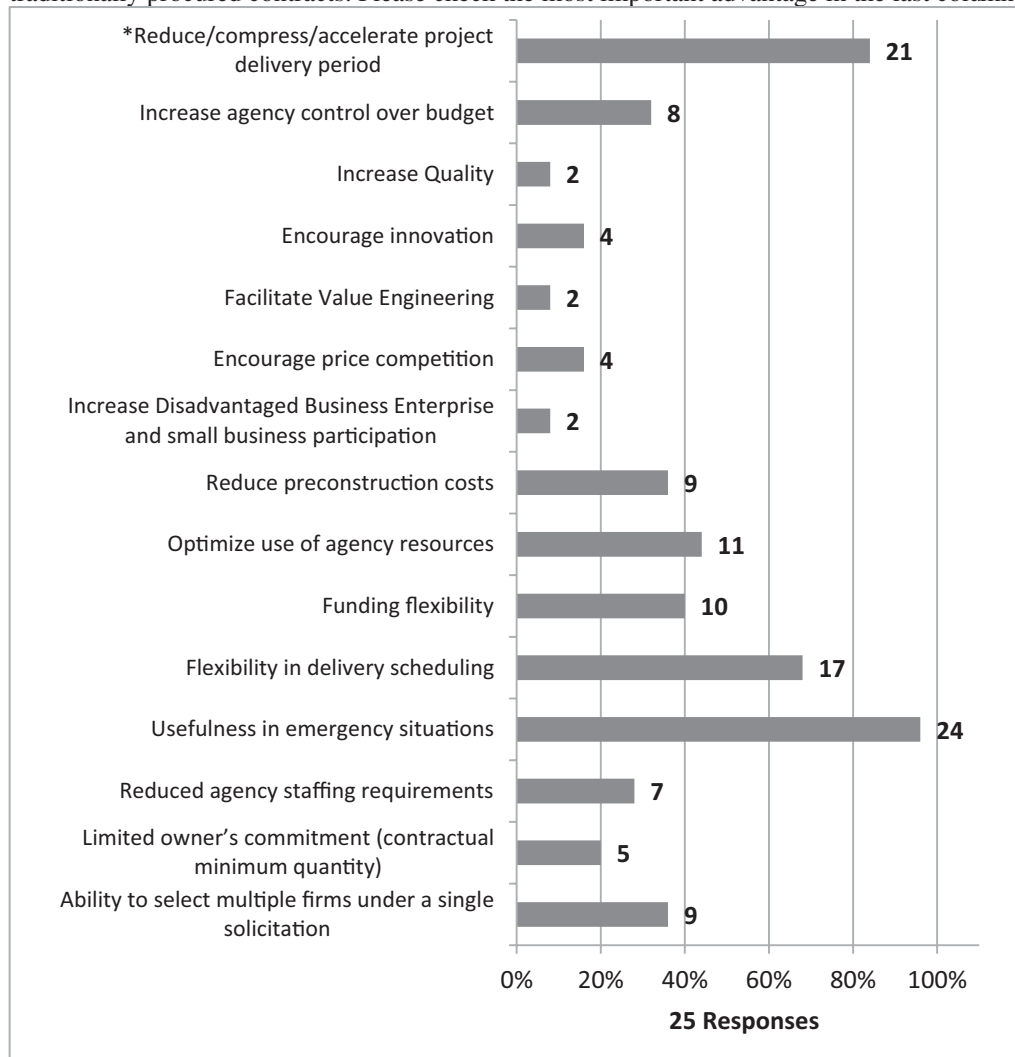
11. Construction Services: Total Responses = 24

Value	Count	Percent
Hazardous waste treatment, mitigation, removal	6	25.0%
Erosion control/stormwater mitigation	6	25.0%
Landscaping	7	29.2%
Environmental mitigation	4	16.7%
Bike lanes, sidewalks, transportation enhancement projects	5	20.8%
ADA-related improvements (sidewalk ramps, etc.)	6	25.0%
Roadway safety improvements	10	41.7%
Traffic signalization	11	45.8%
Resurfacing	10	41.7%
None	5	20.8%
Other	7	29.2%

12. Preventive maintenance/repair: Total Responses = 29

Value	Count	Percent
Bridge repair/preservation	12	41.4%
Roadway repair/preservation	14	48.3%
Drainage maintenance	9	31.0%
Rest area improvements	4	13.8%
Roadside safety hardware repair/preservation (e.g., guardrail, impact attenuator repair)	18	62.1%
Pavement markings	10	34.5%
None	3	10.3%
Other	11	37.9%

13. From the following list, please check those advantages that you have observed/perceived in IDIQ over traditionally procured contracts. Please check the most important advantage in the last column.



14. From the advantages listed in the previous question, please indicate the one you consider the MOST important:

Value	Count	Percent
1. Reduce/compress/accelerate project delivery period	15	62.5%
2. Increase agency control over budget	0	0.0%
3. Increase quality	0	0.0%
4. Encourage innovation	0	0.0%
5. Facilitate value engineering	0	0.0%
6. Encourage price competition	0	0.0%
7. Increase Disadvantaged Business Enterprise and small business participation	0	0.0%
8. Reduce preconstruction costs	1	4.2%
9. Reduce risk related to contractors poor performance	0	0.0%
10. Optimize use of agency resources	1	4.2%
11. Funding flexibility	1	4.2%
12. Flexibility in delivery scheduling	3	12.5%
13. Usefulness in emergency situations	1	4.2%
14. Reduced agency staffing requirements	1	4.2%
15. Limited owner's commitment (contractual minimum quantity)	0	0.0%
16. Ability to select multiple firms under a single solicitation	1	4.2%

15. What project delivery methods is your organization allowed to use for typical versus IDIQ projects?

	Typical Project		IDIQ Project		Total
	Count	Percent	Count	Percent	
DBB	18	90.0%	16	80.0%	20
CM-at-Risk or CMGC	8	88.9%	4	44.4%	9
DB	15	93.8%	5	31.3%	16
Competitive Sealed Best Value	1	100.0%	0	0.0%	1
Fixed Price/Variable Scope, Alternate Pavement Bidding, ATCs on DBB	1	100.0%	0	0.0%	1
Other, Please specify:	2	100.0%	0	0.0%	2
Other, Please specify: Oklahoma doesn't use CM, CMGC or DB	1	100.0%	1	100.0%	1
Other, Please specify: Professional Services, Maintenance	1	100.0%	1	100.0%	1
QBS for Design	1	100.0%	0	0.0%	1
Other, Please specify: Price Agreement Work	0	0.0%	1	100.0%	1

16. What procurement methods is your organization allowed to use for typical versus IDIQ projects?

	Typical Project		IDIQ Project		Total
	Count	Percent	Count	Percent	
Low Bid	23	100.0%	19	82.6%	23
Best Value	10	90.9%	5	45.5%	11
Lowest Multiplier (Adjust. Factor)	3	60.0%	3	60.0%	5
16. What procurement methods is your organization allowed to use for typical versus IDIQ projects? Check all that apply.	0	0.0%	0	0.0%	2
Most Qualified	1	100.0%	1	100.0%	1
Other, Please specify: QBS	0	0.0%	0	0.0%	0
QBS for Design	1	100.0%	1	100.0%	1

17. Does your agency have a manual or document that specifically describes the procedures to be used with IDIQ projects?

Value	Count	Percent
Yes	8	36.4%
No	14	63.6%
Total	22	

18. How does your local competitive bidding statutes impact the use of IDIQs by your agency?

Value	Count	Percent
No impact, we are able to utilize IDIQs without restriction.	10	41.7%
Minimal impact, we are able to utilize IDIQs on selected types of projects.	13	54.2%
Some impact, we are only able to award a specific number of IDIQs each year.	1	4.2%
Major impact, we are only able to award a specific number of IDIQs each year on selected types of projects.	0	0.0%
Total	24	

19. How do you advertise and award IDIQ contracts

	Design		Construction		Design-Build		Maintenance		Total
IFB, full open competition, low bid	4	19.0%	14	66.7%	5	23.8%	19	90.5%	21
IFB, competition restricted to prequalified entities, low bid	4	44.4%	9	100.0%	4	44.4%	6	66.7%	9
1-step full open competition RFQ, QBS, no price competition	14	100.0%	2	14.3%	1	7.1%	2	14.3%	14
1-step full open competition RFP, includes qualifications, technical, and price	3	50.0%	1	16.7%	2	33.3%	2	33.3%	6
2-step full open competition, RFQ/RFP	3	42.9%	2	28.6%	6	85.7%	2	28.6%	7
1-step competition restricted to prequalified entities RFQ, QBS, no price competition	3	60.0%	1	20.0%	2	40.0%	0	0.0%	5
1-step competition restricted to prequalified entities RFP, includes qualifications, technical, and price	0	0.0%	1	25.0%	4	100.0%	1	25.0%	4
2-step competition restricted to prequalified entities, RFQ/RFP	3	42.9%	1	14.3%	3	42.9%	1	14.3%	7
Multiple firms selected, low bid	0	0.0%	2	40.0%	0	0.0%	5	100.0%	5
Multiple firms selected, RFQ, QBS, no price competition	7	87.5%	1	12.5%	0	0.0%	2	25.0%	8
Sole source	2	100.0%	1	50.0%	0	0.0%	0	0.0%	2
2-step competition, RFQ, RFP to reduced candidate list, QBS, no price competition	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1

20. If your agency uses unit prices in selection procedures to award IDIQ contracts, how are bid quantities determined?

Value	Count	Percent
Total estimated quantities for the entire contract	15	62.5%
Estimated quantities for a typical Task Order	4	16.7%
Standard bid quantities for all IDIQ contracts	4	16.7%
Other	2	8.3%
Doesn't use unit prices	2	8.3%
Don't know	1	4.2%

Total Responses = 24

21. Have you had a protest of an awarded IDIQ contract?

Value	Count	Percent
Yes	7	26.9%
No	13	50.0%
Don't Know	6	23.1%
Total	26	

22. What was the basis of the protest?

Value	Count	Percent
Please Describe	6	85.7%
Don't Know	1	14.3%
Total	7	

* Please describe:

- Incorrect determination of low bidder.
- Precertification of awarded vendor
- Unbalanced bid.
- Varies.
- Analysis and determination of the low bid.

23. What was the result of the protest?

Value	Count
Protest was upheld	3
Protest was overturned	3
Protest was dropped	3
Don't know	1

Total Responses = 6

*Comments:

- We have prevailed in most cases however there have been a limited number that the bid was overturned.
- ODOT decided to re-bid the maintenance contract. We also award contracts to multiple firms/vendors to eliminate potential protests, and award task orders as needed.

24. When awarding Multiple Award IDIQ contracts, how are task orders awarded? (Check all that apply.)

Value	Count	Percent
We don't use multiple award IDIQ contracts	10	43.5%
To the firm that provides the lowest responsive bid price for a given task order	5	21.7%
To the firm that provides the lowest multiplier or bid adjustment factor(s) for a given task order	1	4.4%
To the firm that bid the lowest unit prices for a given task (unit prices bid once when awarding the contract)	3	13.0%
To the firm that has best experience and the lowest bid prices for a given task order	2	8.7%
By geographic area	9	39.1%
By availability	6	26.1%
Other	7	30.4%
Don't know	0	0.0%

Total Responses = 23

25. Does your agency use a construction task catalogue in IDIQ contracting? It includes descriptions, units of measurement, and unit prices for all tasks expected to be performed under the contract.

Value	Count	Percent
Yes	6	22.7%
No	17	77.3%
Total	22	

26. Rate the following factors as to importance to the success of the IDIQ contract at achieving a fair and equitable price during the procurement process.

	Essential		Important		Not Important		Don't know		Responses
	%	#	%	#	%	#	%	#	#
Agency buy-in to the IDIQ process	30.4%	7	60.9%	14	4.3%	1	4.3%	1	23
Industry buy-in to the IDIQ process	22.7%	5	68.2%	15	4.5%	1	4.5%	1	22
Incentives/disincentive schemes	0.0%	0	36.4%	8	50.0%	11	13.6%	3	22
Performance bond	4.3%	1	60.9%	14	26.1%	6	8.7%	2	23
Well-defined task order scope of work	68.2%	15	27.3%	6	4.5%	1	0.0%	0	22
Ability to award to the low bidder	30.4%	7	52.2%	12	13.0%	3	4.3%	1	23
Ability to use a construction task catalog	9.5%	2	19.0%	4	42.9%	9	28.6%	6	21
Guaranteed minimum value of task orders	0.0%	0	13.6%	3	63.6%	14	22.7%	5	22
System to escalate unit prices in the out-years	4.5%	1	27.3%	6	45.5%	10	22.7%	5	22
Ability to measure the benefits	0.0%	0	63.6%	14	27.3%	6	9.1%	2	22
Independent technical review of DB IDIQ designs	10.0%	2	20.0%	4	25.0%	5	45.0%	9	20
Ability to stop issuing further task orders if contractor performance is poor or unsatisfactory.	43.5%	10	52.2%	12	4.3%	1	0.0%	0	23
Ability to have more than one contractor and competitive bids	28.6%	6	57.1%	12	14.3%	3	0.0%	0	21

27. Does your agency currently have a contract document that was specifically developed for projects incorporating IDIQs?

Value	Count	Percent
Yes	10	38.5%
No	9	34.6%
Don't Know	7	26.9%
Total	26	

28. Please indicate the differences between an IDIQ contract form and a typical contract form.

Response
Basis of award, determination of initial contract value, assignment of work under the contract
Minimum contract value, multiple year duration, escalation clauses, maximum value
Quantities are estimated by historical rather than calculated.
Shorter term, use other agency to bid, longer terms for use.
MoDOT initially used on call contracting for IDIQ, where we were seeing unbalanced bidding for the items of guaranteed or known work with every work order such as traffic control. We would generally see these prices come in higher. We started JOCs a few years ago to minimize the potential for unbalanced bidding.
The scope of work in the proposal booklet does not specify specific locations where the work will occur. Since most of these contracts are district-wide the contractor is required to work wherever the district needs them. These contracts allow MassDOT to use them for normal scheduled maintenance repairs as well as for responding to emergencies.
Construction—IDIQ will contain all items staff believes could possibly be used. IDIQ will contain a list of all the items that staff believes could possibly be used; proposal explains that this is a non-site specific contract and that some items might not be used.
IDIQ are mostly on-call/as-needed; other contracts are project based or can be on-call/as-needed with definite quantities.

29. What payment provisions are contained in your typical agency IDIQ contracts? Total Responses = 23

Value	Count	Percent
Lump sum	10	43.5%
Unit price	21	91.3%
Cost reimbursable	6	26.1%
Single contract that incorporates a combination of two or more of the above	8	34.8%
Other	4	17.4%

30. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following methods for compensating the contractor for mobilization based on their suitability for IDIQ contracts from 1 to 4 with 1 being the most suitable. Put 0 (zero) in those options that you consider not suitable at all, or repeat the number in options that you consider equally suitable.

	1	2	3	4	0	Responses
Option 1. Fixed percentage of the construction cost stated by the DOT and applied to each Task Order.	4	1	3	6	8	22
Option 2. Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	4	4	3	4	7	22
Option 3. Fixed price bid by contractors to be used on each Task Order.	9	1	3	1	6	20
Option 4. No mobilization. Mobilization expenses are included in the bid items.	6	5	4	1	5	21

31. Please rate the following methods (from owner perspective) for compensating the contractor for mobilization (same options as previous question) in relation to the PERCEIVED RISK from reimbursing to contractors the actual mobilization cost and in comparison with traditional low bid contracting methods. Scale 1–3:

- (1) Lower than traditional contracting methods
- (2) Same as traditional contracting methods
- (3) Higher than traditional contracting methods.

	1	2	3	No Opinion	Responses
Option 1. Fixed percentage of the construction cost stated by the DOT and applied to each Task Order.	2	8	3	9	22
Option 2. Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	3	9	2	8	22
Option 3. Fixed price bid by contractors to be used on each Task Order.	3	9	1	8	21
Option 4. No separate mobilization pay item. Mobilization expenses are included in the bid items.	4	5	6	7	22

32. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following escalation methods to adjust unit prices over time based on their suitability for IDIQ contracts from 1 to 7 with 1 being the most suitable. Put 0 (zero) in those options that you consider not suitable at all, or repeat the number in options that you consider equally suitable.

	1	2	3	4	5	6	7	0	Responses
Option 1. Fixed annual percentage stated by the DOT to adjust all bid items.	4	1	1	1	1	0	1	3	8
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	0	2	2	2	0	2	2	2	9
Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCI).	3	3	2	2	1	2	1	3	4

Option 4. Using a regional index (by district or similar) developed and kept by using DOT past bids.	1	0	1	1	6	0	1	3	6
Option 5. Using a state index by category developed and kept by using DOT past bids (asphalt, concrete, structures, etc.)	1	0	3	3	3	0	2	4	6
Option 6. Using an index by pay item. Measure the change of a pay item by using DOT past bids for that or similar pay items.	1	3	0	0	1	1	3	3	7
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	9	1	1	1	3	1	1	0	2

33. Please rate the following escalation methods to adjust unit prices over time (same options as previous question) in relation to the PERCEIVED RISK from obtaining fair unit prices for future contracting periods and in comparison with traditional low bid contracting methods. Scale 1–3:

- (1) Lower than traditional contracting methods
- (2) Same as traditional contracting methods
- (3) Higher than traditional contracting methods.

	1	2	3	No Opinion	Responses
Option 1. Fixed annual percentage stated by the DOT to adjust all bid items.	4	6	3	5	18
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	2	6	4	6	18
Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCI).	3	8	1	6	18
Option 4. Using a regional index (by district or similar) developed and kept by using DOT past bids.	1	8	2	7	18
Option 5. Using a state index by category developed and kept by using DOT past bids (asphalt, concrete, structures, etc.)	0	7	3	8	18
Option 6. Using an index by pay item. Measure the change of a pay item by using DOT past bids for that or similar pay items.	1	10	2	5	18
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	2	9	3	4	18

34. Based on your knowledge and experience related to IDIQ contracting; which of the below performance bond schemes would be the most suitable for IDIQ contracting. (Check all that apply.)

Value	Count	Percent
Contract bond at award covering the maximum amount to be ordered under the contract.	10	45.5%
Contract bond at award covering the minimum guaranteed amount and subsequent bonds on each subsequent task order.	3	13.6%
Contract bond at award covering the contract bid schedule (list of bid unit prices and quantities) and subsequent bonds on a task order basis.	8	36.4%
No Opinion	4	18.2%

Total Responses = 22

35. Would you be willing to participate in a phone interview to collect a case study of your agency's IDIQ process?

Value	Count	Percent
Yes. Please provide an email address for a point of contact:	14	63.6%
No	8	36.4%

36. Please provide any additional information, comment, or question you may have about IDIQ contracting (i.e., agency report with quantifiable savings observed when using IDIQ contracting, biggest challenges/problems of using IDIQ contracting).

Response
Have not used IDIQ in New Hampshire
We have not used.
#5—There has been discussion on ID/IQ by a couple of Bureaus though nothing has been pursued to date. WisDOT is very interested in the results of this study and hope that it will help define the pros/cons of this delivery method.
Delaware uses task order resurfacing contracts to zero the budget each year. The time that we need to go through the traditional design/bid/build process for each task or location is increasing rapidly as new regulations/oversight continually develop. Therefore, we are increasingly relying on task order contracts to deliver smaller projects within a reasonable timeframe.
MDOT previously used IDIQ extensively for signal work, and had some issues with unbalanced bidding. In recent years the use of IDIQ on these types of contracts has decreased because of this issue. Signal and lighting/electrical projects have been the only IDIQ contracts let to date, and we are developing a IDIQ contract for cable barrier repairs in 2014.
We would be interested in trying it and would like to have some sample contracts from other states as a starting point.
The majority of this type of contracts is done by our Traffic and Safety Division and we very rarely use this method in Project Development.
Currently evaluating the implementation. State law requires a project plan to be completed prior to sale, therefore legislation needs revised. Will get construction industry "push-back" as unable to define quantity, therefore unable to guarantee price. Could get push-back from consulting industry as reducing plan development. May require additional oversight by agency, therefore cost savings difficult to identify.
Our legislature recently passed a bill allowing job order contracting, we are just starting to work through how that will impact our procurements.
These types of contracts allow for a certain amount of flexibility for our district offices to maintain our highways and bridges. The bidding of the contracts is becoming harder because of the potential for unbalanced bids. There are a limited number of companies that bid this type of work and they allow looking at how to price the work so they can get the full value of the contract; however, the Department may not get all of the work it expected at the time of the bid.
This is a valuable tool for our agency. We typically use this method for various design functions, maintenance operations (some statewide but primarily in the metropolitan areas) and for construction management.
None. IDIQs are pretty new to us when hiring consultant staff. Procurement Section has been reluctant in the past to allow this because they want everything well defined (Scope, Project, etc...). That has made it difficult to have qualified staff on board in time to avoid delays to our construction projects. We still hire construction contractors through conventional DBB, DB or CMAR (CMGC) which have fairly well defined scopes and project location/footprint.
GDOT's usage of IDIQ contracting has been largely limited to the design, engineering, and related services.
We just received permission to start using this method and have yet to award a contract. We are currently advertising for our first one. Since this is a new process for us we are excited about it and how we may be able to use in the future. We would be very interested to see the results and how other states are using the process.
Caltrans is interested in pursuing the Job Order Contract authority. Several of our local agencies already have this authority.

APPENDIX B

Survey Questionnaire and Results—AGC/ARTBA Contractors

NCHRP 45-09- Contractors Interview

Definitions

Indefinite Delivery/Indefinite Quantity (IDIQ) Contracting

The Indefinite Delivery, Indefinite Quantity (IDIQ) contracting method provides for an indefinite quantity of work during a fixed period of time. The Department will place orders for individual requirements. The Contract may state quantity limits as number of units or as dollar values.

Task Order

Every project to be executed within an IDIQ contract is developed under the issuance of a task order. A task order becomes a contract document and determines location, contract time, and scope of work. Additionally, a task order outlines all required pay items, quantities, and unit prices (as stated in the Bid schedule).

Cost Escalation

Cost Escalation refers to the adjustment of unit prices over time in order to reflect price changes in the construction industry. Escalation clauses are commonly used in multi-year IDIQ contracts.

Mobilization

This work consists of preparatory work and operations, including the movement of personnel, equipment, supplies, and incidentals to the project to establish contractor's offices and buildings or other facilities. This work also includes demobilization.

Questionnaire

1. The following types of contracts are different names for IDIQ contracting; please check those you knew before this survey or you are familiar with. (Check all that apply.) Note: For purposes of this survey the term IDIQ will be used to refer to any type of contract mentioned below.

- Indefinite Delivery/Indefinite Quantity (IDIQ) Contract
- Task Order Contract
- Job Order Contract
- Delivery Order Contract
- On-Call Contract
- None

If *None*, please skip to Question 6.

2. Does your company have any experience with IDIQ contracting (bid, work as subcontractor, etc.)?

- Yes
- No
- Don't Know

If *No* or *Don't Know* are selected, please skip to Question 6.

3. Please fill out the following chart in accordance with your experience on IDIQ contracting and the agency in charge of the contract. (Check all that apply.)

	Awarded a Contract	Bid but not Awarded	Work as Subcontractor	Other	No Experience
State Transportation Agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Types of State Agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Municipal Agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal Transportation Agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Federal Agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Based on your experience with IDIQ; please rate the following factors from the contractor’s perspective in relation to traditional low bid contracting methods.

	Better	No Change	Worse	No Opinion
Schedule risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transparency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complexity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bargaining power of suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subcontracting plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insurance requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to obtain necessary financing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resource conflicts with other ongoing contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to reach DBE, TGB or similar goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. If you were bidding an IDIQ contract, how would the price for the following categories change from traditional low bid contracting?

	Higher	No Change	Lower	No Opinion
Asphalt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concrete	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Steel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earthwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Is there any factor(s) that may prevent you from bidding for future IDIQ contracts?

- Yes
- No
- No opinion

7. Please indicate all factors that may prevent you from bidding for future IDIQ contracts. (Check all that apply.)

- Lack of knowledge about IDIQ
- Complexity of contracting method
- Inherent risk in IDIQ contracts
- Inadequate mobilization compensation
- Inadequate price adjustment over time
- Bonding limitations
- Other _____

8. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following methods for compensating the contractor for MOBILIZATION. (1) Most suitable for IDIQ contracting/(4) Least suitable/(0) Not suitable.

	1	2	3	4	0
Option 1: Fixed percentage of the construction cost stated by the agency (owner) and applied to each Task Order.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 2: Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 3: Fixed price bid by contractors to be used on each Task Order.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 4: No separate mobilization pay item. Mobilization expenses are included in the bid items.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Please rate the following methods (from contractor’s perspective) for compensating the contractor for MOBILIZATION (same options as previous question) in relation to the RISK from recouping the actual mobilization cost and in comparison with traditional low bid contracting methods. (1) Lower than traditional contracting methods; (2) Same as traditional contracting methods; (3) Higher than traditional contracting methods.

	1	2	3	No Opinion
Option 1: Fixed percentage of the construction cost stated by the agency (owner) and applied to each Task Order.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 2: Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 3: Fixed price bid by contractors to be used on each Task Order.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 4: No separate mobilization pay item. Mobilization expenses are included in the bid items.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Would you bid on an IDIQ contract with NO escalation clauses?

- Yes
- No
- Don't know

11. In your opinion, what would the impact be on bid prices if there were NO escalation clause in an IDIQ contract?

- Higher bids
- No impact in bids
- Lower bids
- No opinion

12. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following ESCALATION METHODS to adjust unit prices over time. (1) Most suitable for IDIQ contracting/(7) Least suitable/(0) Not suitable at all.

	1	2	3	4	5	6	7	0
Option 1. Fixed annual percentage stated by agency (owner) to adjust all bid items	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items factored into the selection of the low bid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 3. Using a national or local existing index (ENR, BLS, RSMMeans, SDDOT, CCI).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 4. Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 5. Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 6. Using an index by pay item. Measure the change of a pay item by using historical bid data from that or similar items.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please rate the following ESCALATION METHODS to adjust unit prices over time (same options as previous question) in relation to the RISK from obtaining fair unit prices for future contracting periods and in comparison with traditional low bid contracting methods. Scale 0-3:

- (1) Lower than traditional contracting methods
- (2) Same as traditional contracting methods
- (3) Higher than traditional contracting methods.

	1	2	3	No Opinion
Option 1. Fixed annual percentage stated by the agency (owner) to adjust all bid items.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items and factored into the selection of the low bid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 3. Using a national or local existing index (ENR, BLS, RSMMeans, SDDOT, CCI).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 4. Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 5. Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 6. Using an index by pay item. Measure the change in the price of a pay item by using historical bid data for that or similar items.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. If a multi-year IDIQ contract uses a fixed rate (%) to annually adjust unit prices, what rate would you consider appropriate to cover the material pricing risk? It would be the rate below which your company would not bid on a contract.

___ % Rate

15. Regardless of the delivery method used to execute a given contract, for how long is your company willing to maintain bid unit prices without a contract escalation clause? Answer in months.

___ Months

16. Which of the below performance bond schemes would make it unlikely that your company would bid for an IDIQ contract? (Check all that apply.)

- Contract bond at award covering the maximum amount to be ordered under the contract.
- Contract bond at award covering the minimum guaranteed amount and subsequent bonds (once covered the minimum guaranteed amount) on a Task Order basis.
- On a Task Order basis. No contract bond at award, unless the contract is advertised along with the first Task Order.
- No opinion
- Other _____

17. If bonding for the maximum amount to be ordered under the contract; how would it impact your ability to bid for other contracts?

- Very high impact
- High impact
- Some impact
- Slight impact
- No impact

18 Please provide any comment or question you may have about IDIQ contracting.

Survey Responses—AGC/ARTBA Contractors

1. The following types of contracts are different names for IDIQ contracting; please check those you knew before this survey or you are familiar with. (Check all that apply.) Note: For purposes of this survey the term IDIQ will be used to refer to any type of contract mentioned below.

#	Answer		Response	%
1	Indefinite Delivery/Indefinite Quantity (IDIQ) Contract		5	28%
2	Task Order Contract		8	44%
3	Job Order Contract		15	83%
4	Delivery Order Contract		5	28%
5	On-Call Contract		9	50%
6	None		1	6%

If *None*, please skip to Question 6.

2. Does your company have any experience with IDIQ contracting (bid, work as subcontractor, etc.)?

#	Answer	Response	%
1	Yes - Experience with IDIQ	16	94%
2	No - NO Experience with IDIQ	1	6%
3	Don't Know if Have Experience	0	0%
	Total	17	100%

If *No* or *Don't Know* are selected, please skip to Question 6.

3. Please fill out the following chart in accordance with your experience on IDIQ contracting and the agency in charge of the contract. (Check all that apply.)

#	Question	Awarded a Contract	Bid but not Awarded	Work as Subcontractor	Other	No Experience	Total Responses
1	State Transportation Agencies	6	3	2	2	2	15
2	Other Types of State Agencies	1	1	2	2	5	11
3	Municipal Agencies	1	1	0	0	7	9
4	Federal Transportation Agencies	0	1	0	0	7	8
5	Other Federal Agencies	3	1	1	0	6	11

4. Based on your experience with IDIQ; please rate the following factors from the contractor's perspective in relation to traditional low bid contracting methods.

#	Question	Better	No Change	Worse	No Opinion	Total Responses	Mean
1	Schedule risk	6	4	3	1	14	1.93
2	Cost risk	5	4	5	0	14	2.00
3	Overall risk	3	7	3	0	13	2.00
4	Transparency	2	7	5	0	14	2.21
5	Complexity	4	7	3	0	14	1.93
6	Bargaining power of suppliers	0	4	9	1	14	2.79
7	Subcontracting plan	1	4	8	1	14	2.64
8	Insurance requirements	0	12	1	1	14	2.21
9	Staff management	0	7	6	0	13	2.46
10	Ability to obtain necessary financing	0	13	0	1	14	2.14
11	Resource conflicts with other ongoing contracts	0	6	6	2	14	2.71
12	Ability to reach DBE, TGB or similar goals	0	6	6	2	14	2.71

5. If you were bidding an IDIQ contract, how would the price for the following categories change from traditional low bid contracting?

#	Question	Higher	No Change	Lower	No Opinion	Total Responses	Mean
1	Asphalt	7	5	0	0	12	1.42
2	Concrete	4	8	0	0	12	1.67
3	Steel	6	5	0	1	12	1.67
4	Earthwork	4	6	2	0	12	1.83

6. Is there any factor(s) that may prevent you from bidding for future IDIQ contracts?

	Answer		Response	%
1	Yes - Factors Prevent from Bidding		5	36%
2	No - NO Factors Prevent from Bidding		8	57%
3	Don't Know		1	7%
	Total		14	100%

7. Please indicate all factors that may prevent you from bidding for future IDIQ contracts. (Check all that apply.)

#	Answer		Response	%
1	Lack of knowledge about IDIQ		1	20%
2	Complexity of contracting method		1	20%
3	Inherent risk in IDIQ contracts		0	0%
4	Inadequate mobilization compensation		1	20%
5	Inadequate price adjustment over time		2	40%
6	Bonding limitations		0	0%
7	Other		3	60%

8. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following methods for compensating the contractor for MOBILIZATION. (1) Most suitable for IDIQ contracting/(4) Least suitable/(0) Not suitable

#	Question	1	2	3	4	0	Total Responses	Mean
1	Option 1: Fixed percentage of the construction cost stated by the agency (owner) and applied to each Task Order.	2	2	5	2	2	13	3.00
2	Option 2: Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	4	5	3	0	1	13	2.15
3	Option 3: Fixed price bid by contractors to be used on each Task Order.	7	3	2	0	1	13	1.85
4	Option 4: No separate mobilization pay item. Mobilization expenses are included in the bid items.	1	1	1	6	5	14	3.93

9. Please rate the following methods (from contractor's perspective) for compensating the contractor for MOBILIZATION (same options as previous question) in relation to the RISK from recouping the actual mobilization cost and in comparison with traditional low bid contracting methods. (1) Lower than traditional contracting methods; (2) Same as traditional contracting methods; (3) Higher than traditional contracting methods.

#	Question	1	2	3	No Opinion	Total Responses	Mean
1	Option 1: Fixed percentage of the construction cost stated by the agency (owner) and applied to each Task Order.	1	4	7	0	12	2.50
2	Option 2: Fixed percentage bid by contractors to be applied to each Task Order and factored into the selection of the low bid.	3	3	5	1	12	2.33
3	Option 3: Fixed price bid by contractors to be used on each Task Order.	4	4	4	1	13	2.15
4	Option 4: No separate mobilization pay item. Mobilization expenses are included in the bid items.	1	2	9	0	12	2.67

10. Would you bid on an IDIQ contract with NO escalation clauses?

#	Answer	Response	%
1	Yes	10	71%
2	No	4	29%
3	Don't Know	0	0%
	Total	14	100%

11. In your opinion, what would the impact be on bid prices if there were NO escalation clause in an IDIQ contract?

#	Answer	Response	%
1	Higher bids	11	92%
2	No impact in bids	1	8%
3	Lower bids	0	0%
4	No opinion	0	0%
	Total	12	100%

12. In accordance with your knowledge and/or experience related to IDIQ contracting, please rank the following ESCALATION METHODS to adjust unit prices over time. (1) Most suitable for IDIQ contracting/(7) Least suitable/(0) Not suitable at all.

#	Question	1	2	3	4	5	6	7	0	Total Responses	Mean
1	Option 1. Fixed annual percentage stated by agency (owner) to adjust all bid items	2	3	1	1	3	1	1	1	13	3.92
2	Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items factored into the selection of the low bid.	4	0	2	2	3	1	1	1	14	3.86
3	Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCI).	3	6	1	1	1	1	0	1	14	2.93
4	Option 4. Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	3	0	5	1	2	2	0	0	13	3.38
5	Option 5. Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.).	2	1	2	4	3	1	0	0	13	3.62
6	Option 6. Using an index by pay item. Measure the change of a pay item by using historical bid data from that or similar items.	2	1	0	3	2	3	1	1	13	4.54
7	Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	0	0	0	2	1	0	5	6	14	6.86

13. Please rate the following ESCALATION METHODS to adjust unit prices over time (same options as previous question) in relation to the RISK from obtaining fair unit prices for future contracting periods and in comparison with traditional low bid contracting methods. Scale 0–3:

- (1) Lower than traditional contracting methods
- (2) Same as traditional contracting methods
- (3) Higher than traditional contracting methods.

#	Question	1	2	3	No Opinion	Total Responses	Mean
1	Option 1. Fixed annual percentage stated by the agency (owner) to adjust all bid items.	4	5	5	0	14	2.07
2	Option 2. Fixed annual adjustment rate (%) bid by contractors to be applied to adjust all bid items and factored into the selection of the low bid.	3	6	5	0	14	2.14
3	Option 3. Using a national or local existing index (ENR, BLS, RSMeans, SDDOT, CCI).	4	7	3	0	14	1.93

4	Option 4. Using a regional index (by district or similar) developed and kept by each agency using its historical bid data.	3	4	5	1	13	2.31
5	Option 5. Using a state index by category developed and kept by each agency using its historical bid data (asphalt, concrete, structures, etc.).	3	6	4	1	14	2.21
6	Option 6. Using an index by pay item. Measure the change in the price of a pay item by using historical bid data for that or similar items.	5	3	5	1	14	2.14
7	Option 7. No escalation. Bid prices are used along the base contract period and kept during potential contract extensions.	2	3	9	0	14	2.50

14. If a multi-year IDIQ contract uses a fixed rate (%) to annually adjust unit prices, what rate would you consider appropriate to cover the material pricing risk. It would be the rate below which your company would not bid on a contract.

% Rate
2
5%
8
5%
4.0
4
4
5
5%
4
0%

15. Regardless of the delivery method used to execute a given contract, for how long is your company willing to maintain bid unit prices without a contract escalation clause? Answer in months.

Months
12
12
60
6
24
12
6
12
12
3
12
48
12

16. Which of the below performance bond schemes would make it unlikely that your company would bid for an IDIQ contract. (Check all that apply.)

#	Answer	Response	%
1	Contract bond at award covering the maximum amount to be ordered under the contract.	4	31%
2	Contract bond at award covering the minimum guaranteed amount and subsequent bonds (once covered the minimum guaranteed amount) on a Task Order basis.	2	15%
3	On a Task Order basis. No contract bond at award, unless the contract is advertised along with the first Task Order.	1	8%
4	No Opinion	5	38%
5	Other	1	8%

Other
 Bonding does not impact a decision to bid or not bid a IDIQ Contract

17. If bonding for the maximum amount to be ordered under the contract; how would it impact your ability to bid for other contracts?

#	Answer		Response	%
1	Very high impact		0	0%
2	High impact		1	8%
3	Some impact		5	38%
4	Slight impact		1	8%
5	No impact		6	46%
	Total		13	100%

18 Please provide any comment or question you may have about IDIQ contracting.

Text Response
 Many of the questions are too generic to have real validity. The answers depend on factors such as contract size, actual scope of work, duration, and any special requirements. For example, when asked below what percentage escalation would we not bid an IDIQ contract the answer is zero because we would simply include whatever escalation we believed appropriate in our base bid.
 The question of escalation needs to focus on the type and scope of work; i.e., asphalt paving, steel, concrete and excavation. Also mobilization needs to be evaluated on the scope of work to be awarded per contract and the amount of equipment required. Also mob could be bid on a unit price; i.e., engineering \$/hour, lowboy tractor to move in and out of the contract, etc.
 In general, IDIQ contracting is less efficient, higher risk, and more expensive than other methods.
 My company has participated in 2 separate JOC projects for NYSDOT. The prices listed in the “catalog” typically do not cover all job costs. We experience profitability on these projects when the Owner recognizes and agrees to pay for additional items of work which are not included in the “Catalog.” The Contractor is reliant upon a “partnering” relationship with the Owner to recognize these issues and for that reason there is high risk of the tasks being performed at a cost exceeding reimbursement.

APPENDIX C

IDIQ Case Law Analysis

Construction, Maintenance, and Other IDIQ Contracts—Legal Case Studies

The search for case law in construction, maintenance, non-design professional services, and supply IDIQs yielded 72 cases from the 22 different agencies shown in Table 4, chapter two. It should be noted that some federal agencies' mission includes delivering construction and whose staff includes engineers and architects. Others rely on other agencies, usually the General Services Administration (GSA), to deliver their facilities. There is also a differentiation between agencies that can perform major construction projects and those that are restricted to minor projects. An example is the U.S. Army Corps of Engineers, which is authorized to deliver the full range of civil and military construction projects, and the U.S. Army Director of Public Works, which is restricted to minor construction only.

Table C1 contains a synopsis of the cases reviewed to produce the information contained in this section. Of the total of 76 cases, 41 were directly related to the construction, maintenance, and/or management of facilities. The remaining 35 dealt with various aspects of public agency procurement that are topically related to IDIQ contracting and where the decision could be applied in principle to a facility-related IDIQ contract. An example is a claim for a professional services contract to furnish child care services where the dispute entailed the evaluation of the professional credentials of key personnel, a task done in A/E QBS IDIQs. Another example would be a supply contract that requires the vendor to design and install a particular piece of equipment which is akin to a DB IDIQ contract for a facility.

TABLE C1
SYNOPSIS OF IDIQ CASE INCLUDED IN THE CONTENT ANALYSIS

IDIQ Type	Construction	Maintenance	Services	Supplies	Single Award	Multiple Award	
	19	10	36	11	50	26	
Federal Adjudicating Authority	U.S. Court of Appeals, Federal Circuit	U.S. Court of Federal Claims	U.S. District Court	Comptroller General of the United States			
	18	37	14	7	Decision		
Basis of Claim	Breach of Contract	Award Fatally Flawed	Violation of Competition in Contracting Act	Other	<i>Sustained</i>	<i>Denied</i>	<i>Other</i>
	22	41	5	8	22	51	3
Prevailing Party	Agency	Prime Contractor	Prime Over Its Subcontractor		Subcontractor Over Its Prime		
	52	16	4		4		

The statistics displayed in Table C1 show that roughly one-third of federal IDIQ contracts are multiple award IDIQs where a pool of contractors compete for each individual work order. This is in response to the Federal Acquisition Streamlining Act of 1994 (FASA), which explicitly encourages multiple award contracts to maximize competition after award (Thornton 2002). It also shows that the majority of the claims were settled in favor of the agency indicating that the federal IDIQ contract form is in most cases defensible. Thus, a state DOT wishing to implement IDIQ contracting would do well to use the federal form as its starting point and then tailor it to the state's statutes.

It is notable that only five of the claims in the sample were over the agency's limiting competition on the post-award work orders. While not shown in the table, all five claims were denied, and among the five, the claims were heard by three of the four federal adjudicating authorities. This leads one to infer that the full and open competition that occurs in the pre-award phase is viewed by industry as sufficient. The majority (41 of 76) were protests over the award system used to select the winner. Nearly a quarter of those protests (10) can be classified as "sour grapes" or

“sore loser” cases where the court ruled that the published RFP evaluation plan was fair, equitable and the award was made in accordance with the published plan. Additionally, 8 of 10 of those claims challenged the agency’s evaluation of the party’s qualifications. The remaining two entailed a claim when the agency canceled the solicitation when all the bids were out of the money and one where the low bidder challenged an award to the high bidder as best value.

The content analysis showed that the following three areas are particularly sensitive to protests and claims in IDIQ contracts:

- Development and execution of evaluation plans.
- Breach of contract due to failing to request minimums specified in the contract, large changes in the as-built quantities versus the as-bid quantities, and the agency procuring services similar to those in the IDIQ contract from other contractors or using its internal staff.
- IDIQ prime contractor changing subcontractors after award of the contract.

IDIQ Proposal Evaluation

The contractor prevailed in ten protests of IDIQ evaluation and award cases. Those that were found against the agency can be classified into two groups: those where the agency failed to follow its published evaluation plan and those where the agency failed to conduct a proper procurement by making a mistake or inadvertently giving one competitor an advantage. The first group contains protests that are perhaps the easiest to avoid. The agency must train its evaluation panel in exactly how to apply the evaluation plan to each proposal in a consistent and transparent manner (Shane et al. 2010). In *Afghan American Army Services Corporation vs US* (2009), the contractor alleged that the agency failed to include information provided regarding personnel licensing and certifications. The agency termed the contractor’s information as “vague” and assigned a “weakness” rating for that factor, despite the fact that the contractor had submitted the information when requested by the agency. The Court found that:

“Because the agency has provided no supporting documentation to explain the scores it assigned, this Court cannot determine whether the agency... took into account the amplified information on past performance and had a rational basis [for its rating]. As such, the Court sustains this ground of protest.” (*Afghan American Army Services Corporation vs US* 2009).

Thus, it found to be important that the agency collect the necessary documentation during evaluation to be able to justify the ratings assigned each competitor if a protest arises. This conclusion is further reinforced in *Wackenhut Services, Inc. vs US* (2008) stating:

“In this case, the court has determined that the SEB violated the APA by failing to create a record to explain and justify the [deleted] increase in point score, or [deleted]% increase, between the SEB's Preliminary and Final Findings. The agency must examine the relevant data and *articulate a satisfactory explanation for its action and the choice made* . . . In reviewing that explanation, we must consider whether the decision . . . was based on a consideration of the relevant factors and whether there has been a clear error of judgment” (*Wackenhut Services, Inc. vs US* 2008).

Breach of Contract

The content analysis reviewed 22 cases where breach of contract was alleged by the claimant. The claim was decided in favor of the contractor in only 8 of the cases. Two of the cases involved changes in the quantity of services ordered by the agency. In *Dynamics Corporation of America v. US* (1986), the agency was pleasantly surprised at the prices quoted by the winning contractor and, as a result, sought to make the most of the opportunity by ordering more than the quantity that was in the expected annual amount stated in the RFP. In this case, the variation in quantities was sufficient enough to cause the Federal Court of Claims to direct the agency to reimburse the contractor for the difference in value between the expected and actual amounts of the items in question. In *Gardiner, Kamy & Associates, PC vs. Jackson* (Secretary of Housing and Urban Development) (2004), the Federal Court of Appeals reversed a court of claims ruling in favor of the agency and remanded it for further consideration. The basis of the decision was the failure of the agency to negotiate in good faith, taking the stance that since it had

issued two work orders after the base contract period was over and the extension period had not been formally concluded that no contract was in effect and it did not have a duty to negotiate. The court disagreed, stating:

“The contract provided that work requirements, delivery schedule, funding arrangements, and travel requirements for each task order would be negotiated separately. Since the contract minimum had already been met, HUD had the right to forgo new task orders and to seek a new contractor, and GKA could decline future orders. Nevertheless, the parties entered into Modification 2 for Task Orders 13 and 14. HUD thereby received a substantial benefit because the timing of the next omnibus contract was a concern, and it preferred not to have a lapse in performance... We differ from the board, however, in that we conclude the agreement to enter into Modification 2 provided sufficient consideration to reprice Task Orders 13 and 14 after the audit was conducted, both prospectively and retroactively... So long as GKA insisted that a retroactive price adjustment was a condition of the extension, HUD could not have forced GKA to enter into a new task order, agree to an extension of an old order, or provide services solely on HUD's terms. GKA's promise to perform the tasks under Modification 2, when it was not so obligated, was sufficient consideration for HUD's return promise to retroactively and prospectively reprice Task Orders 13 and 14” (Gardiner, Kamy & Associates, PC. vs. Jackson 2004).

Unfoldment, Inc. v. District of Columbia Contract Appeals Board (2006) was a case where the agency sought to terminate the IDIQ contract, arguing that it contained no minimum ordering quantity by citing: “Article XIV of the contract provides: This is an Indefinite Quantity Contract with Fixed Unit Pricing and a maximum contract ceiling amount, with payments based on the documented delivery of the specified units of service.” However, the RFP provided both minimum and maximum quantities for “planning purposes only.” The court sided with the contractor citing a District of Columbia procurement regulation (27 DCMR § 2103) that was incorporated by reference which stated: “The use of District indefinite quantity contracts shall be mandatory to the extent of the minimums stated in those contracts.”

The unusual aspect of this case was that it also contained the standard FAR termination for convenience clause upon which the agency also relied in its decision to terminate before fulfilling the minimum quantity of services. The court went on to find:

“It is clear from these documents, which are incorporated into and made part of the contract, that the contract stated a minimum placement requirement, that CFSA was bound to pay Unfoldment at least for that minimum, and that CFSA should have obligated the amount of budget authority needed to cover the minimum placement requirement. Failure to pay the minimum during the initial one-year period of the contract constitutes a breach of Unfoldment's contract” (*Unfoldment, Inc. v. District of Columbia Contract Appeals Board* 2006).

Thus, this decision shows that the FAR termination for convenience clause does not cover every possible situation. In this case, the agency was seeking to terminate an IDIQ contract under which it had placed several work orders for which notice to proceed had not been given. Thus, the contractor had a right to rely on the agency's promise of payment since it had already obligated itself to rent the necessary space to perform the work orders, the agency was not able to terminate for convenience at no cost to itself.

The second breach situation in which the courts sided with the contractor involved the agency procuring similar goods or services from a source other than the IDIQ contractor. In *Ronald A. Torncello and Soledad Enterprises, Inc. vs. US* (1982), the US Court of Claims decision was significant enough to be cited in future claims as authority and is called the Torncello doctrine. The case came from a Navy IDIQ for base maintenance and repair services. The gist of the case involved furnishing “pest control work” which was comprehensive in the types of pests covered in the contract and for which Soledad bid \$500 per call. After award, the Navy found it only required “gopher control” and was able to procure that from an unsuccessful bidder on the same IDIQ for \$35 per call. In considering the contractor's appeal to a decision made by the Armed Services Board of Contract Appeals (ASBCA), the US Court of Appeals wrote:

“[The] plaintiff's complaint is serious that the effect of the ASBCA's constructive use of termination for convenience has been to allow the government to walk away from all of its contractual obligations. We note as one of the most elementary propositions of contract law that *a party may not reserve to itself a*

method of unlimited exculpation without rendering its promises illusory and the contract void, and we question if the government's termination for convenience clause should be construed that broadly... Here we have a putative or constructive termination only, and *the court will not suppose such a termination as exonerating defendant from all its commitments*, if the act would be an abuse of discretion” (Ronald A. Torncello and Soledad Enterprises, Inc. vs. US 1982).

The doctrine articulated in this much cited case essentially states that the limits to the federal termination clause end when the agency uses it to renege on a promise by issuing a work order but not the notice to proceed. The phrases in italics above express the idea that if the agency could abandon an IDIQ contractor without having fulfilled its promise to order a minimum quantity it would render the entire contract void and the agency guilty of abuse.

IDIQ Prime/Subcontractor Issues

The final legal issue found during the analysis of the federal IDIQ contract case law, dealt not with the relationship between the agency and its prime contractor, but rather with the obligations and responsibilities of the prime and its subcontractors to each other. In the case of *Glynn v. Impact Science & Technology, Inc.* (2011), the plaintiff was a subcontractor for a prime that held an IDIQ to supply electronic devices to the military. During the course of the contract, Glynn changed the design of a specific component causing its cost to rise above the amount contained in the IDIQ pricing agreement. Because of this, the prime contractor stopped ordering from Glynn and found another source of the component. Before going further, the reader should know that this claim was rife with unsupported allegations from both parties. Further complicating this situation was the fact the Glynn was actually an employee of the prime contractor at the outset of the IDIQ contract. The ultimate decision has nothing to do with the extraneous issues that obfuscate the fundamental contractual question:

Can an IDIQ prime contractor change subcontractors after award if the actions of the one included in the original contract subcontracting plan cause the actual cost to perform that subcontractor’s scope of work to increase?

The United States District Court in Maryland heard this case. The prime contractor Impact Science & Technology, Inc. (IST) alleged that it lost business because of Glynn’s actions, which caused the Navy to cease issuing work orders beyond the first one. The court disagreed and found for the subcontractor stating:

“...the record provides at least two other explanations for the lack of follow-on orders that are equally plausible, if not more so. First, the IDIQ contract was, by definition, a contract for an indefinite quantity of ... units. The mention of 10,000 ... systems was a reference to the IDIQ contract's maximum possible limit, not an actual order. Thus, there was never any guarantee that NAVSEA would place an order for any more units beyond the initial 1,100. Second, IST had to replace the [old] module of the 1,100 units covered by NAVSEA's initial order with the newer module, causing a delay in their delivery... and this dissatisfaction [over the delay] could very well be the reason that NAVSEA declined to place additional orders” (*Glynn v. Impact Science & Technology, Inc.* 2011).

A second case, *Control Solutions LLC v. Oshkosh Corporation* (2012), over the same issue went the other way. Control Solutions (CS) was a supplier of powered doors to Oshkosh who held an IDIQ contract to furnish equipment to the military. CS manufactured and furnished four specialty doors to Oshkosh for use in the proposal for this contract. Oshkosh paid CS for those doors and won the contract. The relationship between the prime and the sub deteriorated after award with the prime eventually completing the contract by procuring specialty doors from another source. CS cited the doctrine of *promissory estoppel* in its claim and alleged that an oral contract to supply doors if the prime won the contract was formed. It then relied on the promise of future work to its detriment. The court cited the definition of *promissory estoppel* in its ruling:

“To establish a claim, the plaintiff must prove that (1) defendant made an unambiguous promise to plaintiff, (2) plaintiff relied on such promise, (3) plaintiff's reliance was expected and foreseeable by defendants, and (4) plaintiff relied on the promise to its detriment” (*Control Solutions LLC v. Oshkosh Corporation* 2012).

It went on to state that this "...claim fails... [because there] is no written evidence of an "unambiguous promise" to use CS as the supplier for any and all units Oshkosh requires." Therefore the court found for the prime IDIQ contractor explicitly stating that CS had been fully compensated for the four doors and that the prime was under no obligation to continue the relationship after award.

The lesson to be learned for agencies from these two cases revolves around the principles of *promissory estoppel*. In an IDIQ contract, the agency can find itself liable for the same reasons. For example, an agency engineer who indicates to the IDIQ contractor that future work orders are in the pipeline could create a situation where *promissory estoppel* would apply if the contractor acted on the promised and ordered materials for the future work order to avoid any delays in the logistics process. Training for agency personnel who will become involved with IDIQ contracts is necessary to ensure that they are both aware of and sensitive to the difference between a work order and a stand-alone design, construction or maintenance contract.

Professional Services IDIQ Contracts—Legal Case Studies

IDIQ has been used by the transportation industry at the federal and state level to procure professional services for at least a couple of decades. On the federal-aid projects, the use of IDIQ contracts is acceptable under certain conditions as long as the consultant selection is based on open competition and demonstrated competence and qualifications in accordance with 23 CFR Part 172 (FHWA 2012). As discussed in chapter one, design IDIQs come with a variety of names. Some of the more common are "general engineering consultant" (GEC) and "on-call," "master," or "term" agreements in which the agency is not obligated to order, nor is the consultant obligated to furnish, any amount of engineering services until it is required through the issuance of a work order. Design contracts are typically formed under the auspices of a state "mini-Brooks Act," which requires that the award be made solely on a basis of qualification and past performance, which is termed "Qualification-based Selection" (QBS) (ACEC 2010). This creates a contractual environment where the consultant is reluctant to instigate a claim for fear that it will negatively impact its competitiveness for future projects, a phenomena called by one author the "Poison-the-Well Syndrome" (Koch et al. 2010). As a result, the record did not provide the broad wealth of case law found in the construction, maintenance and supply IDIQ areas. Thus, the design IDIQ cases were selected based on their content to be presented as examples illustrating common legal decisions rather than analyzed by content analysis. The four selected examples are summarized in chapter two.

Exelis Systems v. US

Background: While not a classic A/E professional services contract, this case provides an excellent example of what is considered during a bid protest on a design IDIQ and how an agency can mitigate the potential for a protest by developing a QBS evaluation plan. In this case, Pacific Architects and Engineers (PAE) was the incumbent IDIQ contractor and mobilized in the various locations required in the RFP.

Substance of the Dispute: The evaluation plan contained two work orders that the agency intended to issue after the contract was awarded. One was for Baghdad Embassy Compound (BEC), which represented a typical work order that was anticipated during the life of the IDIQ contract. The second was a proposal for the program management office itself. Exelis' principal arguments relate to the agency's evaluation of the competitors' responses to the BEC sample task. The major issue cited was the agency's evaluation of the firms' proposed staffing mix and level of effort in response to the sample task. The adjectival ratings for each competitor are shown in Table C2.

TABLE C2
EVALUATION OF EXELIS AND PAE IDIQ PROPOSALS

Evaluation Factor	Exelis	PAE
1. Overall Approach to IDIQ and Program Management	Excellent	Excellent
2. Baghdad Embassy Compound Sample Task Proposal	Satisfactory	Excellent
2a. Staffing Plan	Marginal	Excellent
2b. Key Personnel	Satisfactory	Excellent
2c. O&M Plan	Satisfactory	Excellent
2d. Sample Quality Control Plan	Excellent	Excellent
2e. Preliminary Transition Plan	Satisfactory	Excellent

3. Technical Proficiency	Excellent	Excellent
4. Program Management Office Task Order Proposal	Excellent	Excellent
4a. PMO Key Personnel	Excellent	Excellent
4b. Sample Program Management Plan	Excellent	Excellent
4c. Sample Cost Control Plan	Excellent	Satisfactory
5. Past Performance and Experience	Confidence	Significant Confidence
6. Price	\$(Deleted]	\$(higher than Exelis]

Table C2 shows that with the exception of Exelis' rating for the BEC sample work order, the competitors were fairly evenly matched. The agency's justification for Exelis' marginal rating in the BEC staffing plan was rooted in the fact that its plan did not appear to have appropriate types of personnel with the requisite qualifications and experience assigned to three specific areas: power generation, heating, ventilation and air conditions, and vehicle maintenance. Exelis claimed that PAE's rating was flawed because its staffing plan showed a satisfactory level of staff in the first year, but decreased below that level in the four optional extension years. Finally, the difference in the ratings assigned for the past performance and experience evaluation factor, while both satisfactory, was attributed to Exelis' record that showed it had received an unsatisfactory rating on a previous federal contract as well as a "cure notice" (a warning that the government intended to terminate a contract for default if corrections are not immediately made) for a current contract.

Decision and Summary: The Comptroller General denied all of Exelis' claims except for the one pertaining to the evaluation of PAE's staffing plan. The record reads:

"We sustain the protest for the limited reason discussed above relating to the agency's misevaluation of PAE's proposed staffing plan. As noted, the record shows that the PAE proposal includes a substantial reduction in the proposed level of effort during the later years of the contract without any explanation of how PAE will perform what essentially amounts to constant requirements; correspondingly, the evaluation record is silent regarding how the agency's evaluators viewed PAE's progressive reduction in its proposed level of effort" (Comp. Gen. B-40711.5, 2013).

The decision goes on to award Exelis with reimbursement of the costs of pursuing the portion of the claim regarding the apparent misevaluation of PAE's staffing plan. It also recommends that the agency "either: (1) evaluate the PAE proposal as it currently is written and make assessments that address the fact that PAE has proposed a progressive, substantial reduction in the level of effort over the life of the contract; or (2) reopen the competition, obtain revised proposals, evaluate those revised proposals and make a new source selection decision" (Comp. Gen. B-40711.5, 2013).

This case illustrates the issues inherent to evaluating the qualifications and past performance found in a QBS award system. Although the award was not purely QBS, price was not the issue of contention. Experience has shown that it is difficult for incumbents with a satisfactory record of performance to be unseated. One author puts it like this: "Experienced contractors also know that bidding opportunities for a reoccurring contract are inherently biased toward the incumbent contractor" (White 2011). This advantage occurs for two fundamental reasons:

1. Since the incumbent is already on site and has been performing the desired services for the agency, it understands the risk profile and is typically able to submit a lower proposed price than other competitors. (White 2011).
2. The evaluation board typically contains agency members with personal knowledge of the incumbent's performance and if that perception is positive, those panel members are able to assign a higher level of confidence in the incumbent's ability to successfully complete the contract than for those competitors whose performance must be gauged purely from the proposal process itself (White 2011).

This issue is important to the synthesis because in many cases the agency is exposed to protest risk through accusations of favoritism. In an A/E contract, the QBS award process is inherently subjective, regardless of how numerically sophisticated the evaluation plan's scoring system appears to be. In the Exelis case, the design services were incidental to the rest of the scope of work. Thus, the award was based on best value and both reasons favoring the incumbent were applicable.

Taking the Comptroller General's decision plus PAE's incumbency and the rating of Significant Confidence leads one to infer that the reason the evaluation panel may have overlooked the staffing levels for the option years is due to their familiarity with the incumbent. This leads one to conclude that when an IDIQ is a replacement of an active IDIQ contract that has reached its term that the agency might consider cautioning its evaluators against using personal experience rather than the information contained in the proposals as the basis for their rating. It must be noted that this issue cuts both ways if the incumbent has had performance issues during the current contract.

IMS Engineers—Architects, P.C. v. US. 1995

Background: On 5 August 1994, USACE's Omaha District awarded an IDIQ contract for consulting services at "Miscellaneous Military and Civil Hazardous, Toxic, and Radioactive Waste Sites" to IMS Engineers - Architects, P.C. (IMS). The Small Business Administration (SBA) certified IMS as a socially and economically disadvantaged 8(a) business.

The contract was for a term of one year with four option years. The minimum amount of services that could be ordered was \$2,500 and the maximum amount of services, including the four option years, was \$10,000,000. The contract required that at least 50 percent of the contract value be self-performed by IMS. It also contained the following FAR clause germane to this case:

FAR 52.249-7 TERMINATION (FIXED-PRICE ARCHITECT-ENGINEER) (APR 1984): "(a) The Government may terminate this contract . . . for the Government's convenience or because of the failure of the Contractor to fulfill the contract obligations. . . . (b) If the termination is for the convenience of the Government, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services."

After completing two work orders (called delivery orders in the case), an RFP for a third work order to complete a treatability study at an abandoned gas station at March Air Force Base (AFB), California was sent to IMS. The director of public works at March AFB expressed concern as to whether IMS was qualified to satisfactorily perform the study and suggested that a prominent national firm (large business) be given the study under another open IDIQ contract held by USACE. Subsequently, IMS submitted a proposal that showed that the named national firm would perform 85% of the value of the work order under consideration. This was rejected by the agency as it violated the IDIQ contract's minimum 50% self-performance by the 8(a) contractor requirement.

Substance of the Dispute: At this point, price negotiations broke down and after four months the agency moved the study to another open IDIQ contract with a second prominent national consulting firm to complete the study by the original deadline. In doing so, the consultant revised the testing plan to utilize less expensive technologies as a means to accelerate and finish on schedule. Additionally the agency invoked the termination for convenience clause, canceling the work order request with IMS and terminating the remainder of the optional extensions. It requested that IMS submit a proposal for costs associated with the unconsummated work order, and IMS declined to do so stating since no work had been done no reimbursement was due. IMS reacted by accusing the agency of racial discrimination and promulgated a breach of contract claim on the basis that the contract was improperly terminated and that the agency had an obligation to exercise all the optional extensions in the contract.

Decision and Summary: The AFBCA denied IMS's appeal of the contracting officer's decision on the following basis:

"...the termination for convenience clause grants the contracting officer broad authority to terminate. This authority has been described as follows: In no other area of contract law has one party been given such complete authority to escape from contractual obligations. This clause gives the Government the broad right to terminate without cause..."

There are two valuable points that come from this case. First, it affirms the right of the agency to terminate an IDIQ contract without cause for convenience of the federal government. Thus, it is important that the agency not abuse this power and use it arbitrarily. Secondly, the case demonstrates that by including optional extensions to the IDIQ contracts the agency is in no way required to exercise them.

Lucent Technologies World Services Inc. v. US

Background: Lucent was awarded a Multiple Award Task Order Contract (MATOC) as the design-build contractor to the Army's Iraq Reconstruction Communication Sector contract. The contract requires "complete design-build services and procurement for communications design, construction, demolition, and rehabilitation services" (Comp. Gen. B-295462, 2005). As part of that contract, Lucent was asked to prepare conceptual designs and a cost/benefit analysis for potential technologies that would "allow the earliest delivery of a fully functioning nationwide integrated, secure, network." The agency decided to implement Lucent's recommendations for a particular technology, and a subsequent work order to procure the hardware was issued and Lucent announced its intention to compete for the work order for the given system.

Substance of the Dispute: The contracting officer determined that since Lucent had prepared the technical details of the work order RFP and had interacted with at least one of the potential vendors that it had an organizational conflict of interest (OCI) and prohibited it from being awarded that particular work order. The following FAR provision was cited:

"If a contractor prepares and furnishes complete specifications covering nondevelopmental items, to be used in a competitive acquisition, that contractor shall not be allowed to furnish these items, either as a prime contractor or as a subcontractor, for a reasonable period of time including, at least, the duration of the initial production contract" (FAR § 9.505-2(a)(1)).

Lucent protested the award arguing that the particular FAR clause only applies to "complete specifications" and that was not the case in this procurement. It also argued that the agency failed to consider whether or not the apparent conflict actually gave Lucent an unfair advantage, claiming that in fact it did not.

Decision and Summary: The Comptroller General denied Lucent's protest in its entirety based on the same FAR authority that was cited by the contracting officer in the original decision as follows:

It considered "Lucent to have an OCI because of the advantage conferred by preparation of the TETRA device specifications and the resulting knowledge of those specifications prior to the issuance of the RFP... because they furnished the specifications. And it's very clear that they're not allowed to furnish the specifications and then turn around and furnish the items" (Comp. Gen. B-295462, 2005).

This case demonstrates an important point regarding IDIQ design contracts, particularly when they are multiple award DB IDIQs where a pool of contractors will compete for each work order. The point is that winning one work order can create the basis for recusing the winner from competing on a subsequent work order due to the potential conflict of interest. In a typical single project DB contract, the A/E who prepared the preliminary design that is included in the DB RFP is excluded from competing as a member of the DB team to build the project (Liao 2013). While this constraint may not exist in fact in state procurement statutes, the appearance of a conflict of interest can damage an agency's reputation and is best avoided (King and Patterson 2005). On federal-aid DB projects, FHWA's regulatory policy precludes consultants and/or sub-consultants who assist the owner in the preparation of the RFP document from participating on joining a DB team; however, a contracting agency may determine there is not an organizational conflict of interest in certain situations (OFR 2007).

McKissack-URS Partners, JV v. US

Background: McKissack-URS Partners, JV (McKissack) submitted a statement of qualifications to be considered for a Department of Labor A/E contract to furnish architect and engineering design and construction management support services. It was found to be qualified and made the short list, and as part of the process, it was asked to make a presentation to the agency. Another firm was found to be the "most-preferred" firm. Shortly thereafter McKissack was informed that a contract had been successfully negotiated and would be awarded to the other firm.

Substance of the Dispute: McKissack asked to be debriefed on the award decision three times in ten days without receiving one and as a result filed a protest. Its protest was based on the premise that the winning consultant had another active contract with the agency and that constituted a conflict of interest and that the agency's evaluation of its qualifications was unreasonable. McKissack's basis for protest revolved around the FAR requirement that

protests be filed within 10 days and an interpretation that debriefings must occur within that period to provide the protester with the information necessary to determine whether or not to protest. Essentially, McKissack sought to couple two parts of the regulation that were written to each stand alone.

Decision and Summary: The Comptroller General denied the protest in its entirety citing the following:

“[...] the timeliness exception in our Bid Protest Regulations does not apply to debriefings provided in the context of an A/E Brooks Act procurement, and that McKissack was required to file its challenge within ten days of the date it knew or should have known the basis for its protest. The debriefing exception in our timeliness regulations applies only to protests challenging a procurement conducted on the basis of “competitive proposals” under which a debriefing “is requested and, when requested, is required.” 4 C.F.R. § 21.2(a)(2). We note that the protester’s interpretation of the timeliness regulations would result in the current protest being dismissed as premature, because it was filed prior to the debriefing date offered to the protester [...]. We conclude that an A/E competition conducted pursuant to the procedures established by the Brooks Act and FAR Subpart 36.6 does not constitute a competition based on “competitive proposals,” and that the exception in our timeliness rules does not apply” (Comp. Gen. B-406489.2, 2012).

This decision is important to the synthesis because it highlights the importance of correct understanding of the statutes at work in a given dispute. McKissack tried to advance the theory that a protest in an A/E contract should logically follow a debriefing to give the protestor the information necessary to make a protest/no protest decision. This notion was defeated by the fact that a Brooks Act procurement in the federal sector is not based on competitive proposals as defined by FAR Subpart 36.6. Additionally, if sustained, McKissack’s theory could conceivably create a situation where the federal agency would be at a disadvantage by being required to give a protestor the ammunition it needs to stall a given procurement.

APPENDIX D

IDIQ Contract Examples—Case Details

This appendix presents the details of each case listed in Table 21, chapter five. The objective of this appendix is to portray the specific characteristics and IDIQ contracting procedures of the cases in a manner that gives the reader the background to understand how each contract's features contributed to the analysis reported in this synthesis report.

Details of each case are presented in a standard manner to allow an easy comparison of procuring and administrative procedures between contracts. The presentation of these details vary slightly for multiple award IDIQ contracts (Cases 1 and 6) by adding a section for work order placement procedures and indicating the number of awardees. Similarly, case 7 reports the details of a single work order and as a result does not follow the standard format of the previous six cases.

In Cases 1 through 5, contract details were obtained through structured interviews (either in-person or telephonically) with the agency and then complemented by a comprehensive review of contract documents. Case 4 was developed through formal content analysis techniques in solicitation documents. On the other hand, Case 6 corresponds to a work order previously analyzed by two of the authors when developing a synthesis report about expedited procurement procedures. Collection and processing of data for this project followed the same procedures of the first five cases.

ROADWAY SURFACING, RESURFACING, AND REPAIR—CENTRAL FEDERAL LANDS HIGHWAY DIVISION

This contract provides an example of a typical federal multiple award IDIQ contract. Although CFLHD has been using this alternative contracting approach to procure construction and maintenance services for five years, it is important to understand that this agency's contracting practices are based on the FAR, which are a product of the an extensive IDIQ experience available in the federal contracting realm. Like all federal agencies, FHWA procurement procedures are regulated by the FAR, which "is expected to reflect optimum practices from years of experience of all U.S. federal organizations" (Gransberg and Rueda 2014). Therefore, the following case should be considered as representative of effective IDIQ contracting procedures at the federal level.

Case 1—CFLHD: Roadway Surfacing, Resurfacing, and Repair

IDIQ Contract Terminology: Multiple Award Task Order Contract (MATOC)

Work Order Terminology: Task Order

IDIQ Contracting Model: Multiple Award IDIQ

Minimum Guaranteed Value: \$50,000 per awardee.

Maximum Value: \$35,000,000 per awardee.

Minimum Value per Work Order: \$50,000

Maximum Value per Work Order: \$7,500,000

Number of Awardees: 3 (three)

Project Delivery Method: DB

Scope: This MATOC was used by CFLHD to reduce the project delivery period in roadway surfacing, resurfacing, and repair projects in Oregon, Idaho, Washington, and Northern California. It was restricted to roads owned and operated by the National Park Service. The scope of work for task orders may include, but are not limited to, the following construction services: “traffic control (permanent and temporary), contractor sampling and testing, asphalt milling, profile grinding, asphalt paving, thin asphalt overlays, patching, crack & joint sealing for flexible and rigid pavements, chip seals, micro-surfacing, slurry seals, ultra-thin bonded wearing course, subexcavation, minor drainage improvements, placement of aggregate, roadway pulverization, grading, and slope stabilization” (CFLHD 2012).

Advertise/Award Procedures: As shown in Table 24 (chapter five), CFLHD advertises the RFP for the contract along with a statement of work for the first task order. The RFP contains guidelines for contractors to prepare statements of qualifications that must be submitted simultaneously with price proposal for the first task order. Upon collection of bids, the agency proceeds to evaluate proposals based on a number of factors such as previous experience, logistic skills, qualifications, financial capability, and price proposals. “Evaluation factors for the technical proposal are approximately equal to price” (CFLHD 2012). In spite of the fact that contract language allows the selection of three or more firms whose proposals seem to provide the highest overall value for the agency, CFLHD interviewee mentioned that this agency usually awards three contractors. After using the price proposal for the first task order as the cost factor in the best-value procedure, these prices are used to select the low-bid for the first task order among successful bidders.

Work Order Placement Procedures: Unlike what has been seen in multiple award IDIQ contracts awarded by state DOTs (as will be shown in Case 6), federal public owners use straightforward competitive work order placement procedures. Basically, CFLHD advertises task orders to a pool of eligible firms with guidelines for contractors to prepare price proposals that will be used to determine the low bid and award the task order. This process is repeated for each task order allowing contractors to submit up to date prices for each project and eliminating the need for escalation clauses.

Work Order Development: Table 24 also shows the complete task order development process. In addition to the work order placement procedure described above, the flow chart contained in this table shows an optional jobsite visit with awarded contractors in order for them to get a better understanding of each work order to prepare more responsive price proposals.

Payment Provisions: This contract uses fixed price task orders in accordance with price proposals submitted by contractors for each project.

Mobilization Clauses: The use of competitive task orders allows contractors to bid prices for mobilization in accordance with the specific requirements of each project.

Price Escalation Clauses: As mentioned before, the use of competitive procedures to award task orders eliminates the need for price escalation clauses since contractors bid up to date prices for each task order.

Summary: This case shows typical IDIQ procurement practices implemented by transportation agencies at the federal level, specifically the benefit and implications associated to multiple award contracts regulated by the FAR. In addition to the benefits typically associated with high competitive environments, such as lower price proposals (Carr 1983), this case showed how the use of competitive work orders reduces the high uncertainty perceived by contractors in IDIQ procedures. The preparation of price proposals on a work order basis allows contractors to bid up to date prices in accordance with the requirements and characteristics of each project such as location, type of work, and work quantities.

The following is a list of effective practices observed in this contract.

- By implementing competitive work orders, the agency eliminates the need for escalation and mobilization clauses in the base IDIQ contract allowing those two costs to be specific to the scope for each work order.
- Advertising the contract along with the statement of work for the first work order allows CFLHD to evaluate bidders’ technical capabilities and conduct efficient best-value selection procedures.

- Optional jobsite visits create an opportunity for pool contractors to better understand project requirements allowing them to prepare more responsive proposals per work order.
- Setting the minimum guaranteed value of the contract equal to the minimum value per task order allows the owner to commit to issue no more than one task order, while still providing to contractors an incentive to submit low price proposals.

BRIDGE MAINTENANCE CONTRACT

This case corresponds to a state DOT with great experience in IDIQ contracting. Currently, New York State DOT manages a number of programs intended to acquire supplies and/or services through the issuance of work orders. In addition to executing job order contracts (one of its terms for IDIQ) to procure construction and maintenance services, which this agency has been doing for about eleven years, New York State DOT also uses on-call contracts for design and engineering services. Although it seems to be a small contract for minor maintenance activities, Case 7, which is also from New York State DOT, will show that this transportation agency also uses this contracting approach for larger construction projects. The total cost of the work order in Case 7 is even larger than the maximum possible value for the entire contract presented below.

Case 2—New York State DOT: Bridge Maintenance for Various Routes

IDIQ Contract Terminology: Job Order Contract (JOC)

Work Order Terminology: Job Order

IDIQ Contracting Model: Single Award IDIQ

Minimum Guaranteed Value: \$50,000

Maximum Value: \$1,200,000

Minimum Value per Work Order: A minimum value per work order was not established for this contract.

Maximum Value per Work Order: \$500,000

Project Delivery Method: DBB

Scope: In view of the ineffectiveness observed in the use of traditional DBB contracting techniques to procure highway maintenance services, the New York State DOT decided to implement alternative IDIQ methodologies to improve their contracting practices for this type of project (NYSDOT 2007a). This case is part of a set of bridge maintenance/repair JOCs that constitute a three-year pilot program approved for federal funding on December 2007 through the *Special Experimental Project No. 14—Alternative Contracting* (SEP-14) (NYSDOT 2012). Work has included red flag culvert repairs, steel repairs, gusset plate repairs, and scour repairs in three of the seven counties that in Region 9 (see Figure D1).

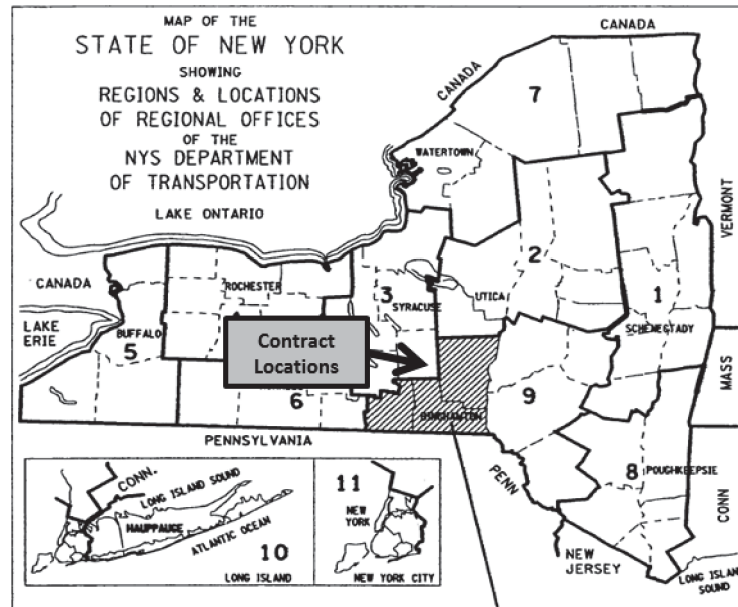


FIGURE D1 Case 2—Contract locations (NYSDOT 2009).

Advertise/Award Procedures: This contract uses a straightforward IFB—a low-bid procurement process (see Table 25 in chapter five), but slightly different from traditional low-bid selection procedures. Instead of submitting unit prices in response to the IFB, interested contractors are required to bid two different adjustment factors to be applied to asset of unit prices for different work items contained within a *Construction Task Catalog*, which are intended to include all pay items to be required to perform work under all job orders. These adjustment factors are intended to represent contractors’ profit and overhead under two different working conditions; *Normal Working Hours* and *Other Than Normal Working Hours*. “The Adjustment Factor for Normal Working Hours includes work conducted from 7:00 a.m. to 5:00 p.m. Monday through Friday. The Adjustment Factor for Other Than Normal Work Hours includes work conducted from 5:00 p.m. to 7:00 a.m. Monday through Friday, any time Saturday, Sunday, or a Holiday, or when the Department can only provide site access for a work day of less than 7 hours” (NYSDOT 2009).

To select the low bid, the extended price (unit price x bid quantity) for each item in the Construction Task Catalog is multiplied by these adjustment factors in accordance with the expected use to be given to each factor throughout the contract. Then, adjusted extended prices are totaled and these totals are used to select the lowest price proposal. It is important to note that bid quantities are stated by the agency only for selecting purposes.

Work Order Development: Table 25 (chapter five) shows the detail process followed by New York State DOT to develop each job order under this contract. An important aspect to be highlighted in Table 25 is the high level of interaction and communication between the agency and the contractor. The first part of this process corresponds to a *Joint Scope Meeting* in which both parties have the opportunity to discuss the scope and requirements of each project. During the development of the job order, there are two other occasions when the agency and the contractor can discuss project-related issues; when sending the draft of the detailed scope of work to the contractor for his/her revision and upon submission of the proposal by the contractor. The main element of this proposal is the project schedule which will determine the use of each adjustment factor. Table 25 describes a high interactive contracting system as recommended by some authors and studies found while conducting the literature review (OFPP 1997; Thornton 2002). When reviewing this case, it can be concluded that this type of relationships may be more easily established in single award IDIQ contracts. Reviewing input from multiple firms in a multiple award contract can be a complex process and may negatively impact the relationship between the agency and awardees.

Payment Provisions: In a similar manner as used to select the low bid, adjustment factors are used to establish a fixed price per work order. Proposals submitted by the selected contractor for each work order (see Table 25) must include a price proposal calculated using unit prices contained in the Construction Task Catalog and the project schedule prepared by the contractor. Thus, the price for each work item is calculated by multiplying its unit price by

the estimated work quantity by the appropriate adjustment factor (unit price x estimated quantity x adjustment factor). Finally, all adjusted extended prices are totaled and this value is used to establish the fixed price for the project.

Mobilization Clauses: In this contract New York State DOT compensates contractors for mobilization expenses in three different ways. First, the Construction Task Catalog contains some mobilization pay items for different special equipment; thus, a given mobilization pay item is considered to pricing a job order only when its respective piece of equipment is required to complete the project. Second, some relevant unit prices include mobilization costs. Finally, other mobilization costs that the contractor considers not covered by the two options mentioned before are expected to be covered by the adjustment factors, so firms must consider this aspect when submitting their factors.

Price Escalation Clauses: This contract allows the adjustment of bid adjustment factors over time. It can be made not more frequently than annually and by request of the contractor. New York State DOT uses the annual Construction Cost Index published by the ENR.

Summary: The great experience of this agency (in comparison with other state DOTs) makes this case particularly important for this study since it allows a review of a mature IDIQ contracting system for single award IDIQ contracts. Although federal agencies usually have more experience acquiring goods and services through IDIQ techniques, these agencies do not usually execute single award IDIQ contracts for construction or maintenance services. As will be seen in Case 4, Missouri DOT has adopted an IDIQ approach similar to one described in this section, using adjustment factors and a Construction Task Catalog. During the interview conducted with Missouri DOT, it was clear the usefulness of this system helped to avoid unbalanced bids.

The following is a list of efficient practices observed in this contract in relation to IDIQ contracting procedures.

- This contract provides a number of opportunities for New York State DOT to discuss project-related issues with the contractor, creating a highly interactive procurement system as recommended by some authors.
- The use of the Construction Task Catalog allows a greater budget control by New York State DOT, preventing bidders from submitting unbalanced bids
- The use of escalation clauses to modify adjustment factors over time allows the agency to execute multi-year contracts with less risk for the contractor. Additionally, unlike other price escalation clauses observed in this study, this contract allows the contractor to decide whether or not to modify adjustment factors on an annual basis, reducing a little more the risk assumed by the contractor.

DESIGN-BUILD PUSH-BUTTON CONTRACT

This contract has been referenced several times in the report for its particular characteristics. This is a three-year \$20 million contract (maximum value) for safety improvement projects. This type of contract was created in an effort to combine the benefits of DB with the expeditious procedures of IDIQ techniques. It is similar to the multiple award federal contracts analyzed in Case 1 in some aspects, but this DB-PB contract was awarded to a single contractor. This is a unique contract that may be used as an example to show the inherent flexibility of this approach.

Case 3—Florida DOT: Design-Build Push-Button Contract

IDIQ Contract Terminology: Design-Build Push-Button Contract (DB-PB)

Work Order Terminology: Task Work Order

IDIQ Contracting Model: Single Award IDIQ

Minimum Guaranteed Value: \$12,500,000 (first task work order)

Maximum Value: \$20,000,000

Minimum Value per Work Order: A minimum value per work order was not established for this contract.

Maximum Value per Work Order: A maximum value per work order was not established for this contract.

Project Delivery Method: DB

Scope: Given the high sensitivity of safety-related projects, some agencies have made efforts to improve procurement practices for this type of project in order to avoid unnecessary delays resulting from complex contracting procedures. In view of the good results obtained from the use of DB contracts and the great capability of IDIQ techniques to compress project delivery periods, Florida DOT decided to combine these two approaches into a single DB-PB contract. When awarding this contract for District 7 the agency had already identified multiple potential projects and grouped them into 13 upcoming task work orders. For instance, the first task work order, which was advertised along with the contract, contained 11 different projects in different locations for a total cost of \$12.5 million. Table 23 (chapter five) shows that this corresponds to the minimum guaranteed amount stated for this contract.

This contract contains a broad scope allowing the contractor to perform several types of work. “The type of projects that may be assigned under this Contract shall include, but not be limited to modifications and improvements to median openings, intersections, signing and pavement markings, traffic signals, highway lighting, and intelligent transportation systems (ITS). Elements of work may include roadways, structures, intersections, interchanges, geotechnical activities, surveys, drainage, signing and pavement markings, signalization, lighting, utility relocation, maintenance of traffic, cost estimates, environmental permits, quantity computation books, coordination, public involvement efforts, and all necessary incidental items for a complete project” (FDOT 2009). Figure D2 contains before and after photographs of several projects delivered by this contract.

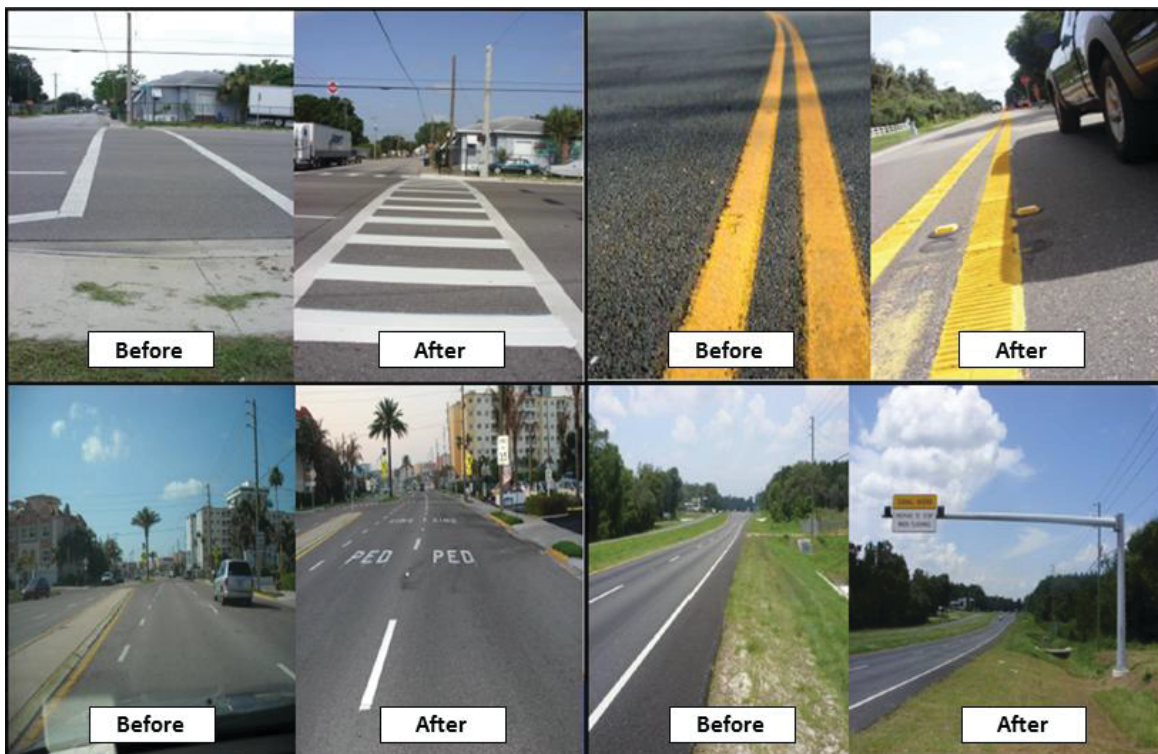


FIGURE D2 Case 3—After and before pictures (adapted from FDOT 2011).

Advertise/Award Procedures: The process to advertise and award the contract was very similar to the one adopted by CFLHD for Case 1, but in this case, the agency used a single award IDIQ format. The Florida DOT advertised an RFP containing guidelines for interested contractors to prepare and submit bid packages that included both technical and price proposals. The latter included two elements:

- *Bid Price Proposal* for the first task work order.
- *Master Pay Item List Pricing*, which is intended to comprise all work items required for subsequent task work orders.

Pay items and bid quantities were provided by the agency. To evaluate bid packages using best-value techniques, Florida DOT first scored the technical aspects based on the criteria shown in Table D1. Finally, having evaluated the technical proposal, the agency used Equation D1 as the final selection formula to award the contract to the bidder that submitted the proposal with the lowest *Adjusted Score*.

TABLE D1
CASE 3—TECHNICAL SCORE EVALUATION CRITERIA

Item	Value
Design	25–40
Construction	25–40
Innovation	0–10
Value added	5–10
Maximum Score	80

$$\frac{0.6 BPP + 0.4 ML}{TS} = \text{Adjusted Score} \quad (\text{Eq. D1})$$

Where: *BPP* = Bid Price Proposal for initial Task Order,
ML = Master Item Lists Pricing, and
TS = Technical Score.

Work Order Development: The complete task work order development procedure used for this contract is presented in Table 26 in chapter five. The main difference between this procedure and those described for previous cases is in the submission of final designs by the contractor for Florida DOT approval in order to proceed with the performance of the task work order.

Payment Provisions: For this contract each task work order is priced using a fixed price determined by using a Master Pay Item List with the bid unit prices submitted by the successful contractor. The design cost portion for each task work order is compensated as a percentage of the construction cost. Along with the price proposal for the first task work order, the contractor should include three different design compensation rates for three different levels of complexity; low, medium, and high. “The lowest percentage will represent the least complexity and the highest percentage will represent the highest complexity” (FDOT 2009). Under any circumstances the compensation for design costs may exceed 20%. Initial proposal should specify the level of complexity for the first task work order. For all subsequent task work orders, design costs will be negotiated based on their level of complexity using the rates originally proposed.

Mobilization Clauses: Florida DOT tackles this issue by asking proposers to submit a *Maintenance of Traffic plus Mobilization* (MOT + MOB) item for the first task work order. This item represents a percentage of the total proposed construction cost to be used in all task work orders; a percentage that must not exceed 20% and which will be used for all subsequent task work orders.

Price Escalation Clauses: This contract provides for adjustments of contractor’s monthly payments using the PPI published by the BLS for Highway and Street Construction. However, during the first year of the contract this index was discontinued and combined with the one for *Other Heavy Construction* into a new index called *Other Nonresidential Construction*. Florida DOT makes payments for the price adjustment the month following the earnings. The adjusted price is calculated as presented in Equation D2.

$$PA = \frac{CMPPI - LPPI}{LPPI} \times CME \quad (\text{Eq. D2})$$

Where: *PA* = Payment Adjustment,
CMPPI = Current Month Producer Price Index,
LPPI = Letting Month Producer Price Index, and
CME = Contractor Monthly Earnings.

Summary: In spite of the fact that this contract was mainly intended for relatively simple safety improvement projects, the large number of projects to be completed during the three-year period and the different types of work contained in the contract scope require certain technical and logistic skills from the contractor. Additionally, Florida DOT seems to be motivated to conduct a strict contractor selection process by the large size of the minimum guaranteed amount. In other words, it can be considered as a high risk contract in comparison with other IDIQ contracts executed by state agencies. Therefore, a stricter best-value selection process looks like a good strategy to mitigate this risk.

The following is a list of effective practices observed in this contract in relation with IDIQ contracting procedures.

- Best-value selection procedures were used as a risk mitigation strategy to ensure the selection of a firm with the required technical and logistic skills for a reasonable price.
- The compensation of design costs as a percentage of the construction cost allows Florida DOT to implement DB-IDIQ contracts with a simple way to compensate contractors for preconstruction activities. Moreover, the use of three different rates to be used in accordance with the complexity perceived in each task order provides a certain degree of flexibility required in a broad-scope contract such as this one.
- By grouping a number of small projects into a single task work order, the contractor may make a better use of its resources reducing overhead costs that would be transferred to the agency.

ASPHALT PAVEMENT REPAIR—ROUTE I-55/I-57

This contract uses adjustment factors submitted by the contractors to adjust a Construction Task Catalog in much the same fashion as the New York State DOT in Case 2. In many ways Missouri DOT IDIQ practices are similar to those described in Case 2. However, the contract presented below shows the application of these practices on a much smaller scale. In comparison with the \$1.2 million ceiling of Case 2, this contract established a not-to-exceed amount of \$125,000 for asphalt pavement repair activities.

Case 4—Missouri DOT: Asphalt Pavement Repair—Route I-55/I-57

IDIQ Contract Terminology: Job Order Contract

Work Order Terminology: Job Order

IDIQ Contracting Model: Single Award IDIQ

Minimum Guaranteed Value: A minimum guaranteed value was not established for this contract.

Maximum Value: \$125,000

Minimum Value per Work Order: A minimum value per work order was not established for this contract.

Maximum Value per Work Order: A maximum value per work order was not established for this contract.

Project Delivery Method: DBB

Scope: “The scope of this project is to provide asphalt pavement repair on an as needed basis in response to sudden occurrences, such as physical damage by the elements, or as a result of wear and tear. The work will be prescribed through individual Job Orders issued to the contractor by the engineer for each work location” (MoDOT 2010). Work conducted under this contract was limited to interstate route I-55 in Ste. Genevieve, Perry, Cape Girardeau, and Scott counties; and route I-57 in Mississippi County. Any work location under this contract is limited to a 2-mile section of roadway, “A 2-mile section shall be defined as 2 miles in one direction on a divided highway or 2 miles in both directions on an undivided highway” (MoDOT 2010).

Advertise/Award Procedures: The advertise/award process used in this contract is similar to the one used in by New York State DOT in Case 2. However, in this case interested bidders are required to bid three adjustment factors instead of two. These three adjustment factors are presented in Table D2. For the selection of the low bid these factors are applied to expected amounts of total work to be performed by the contractor under each working condition associated to the adjustment factors. Table D3 presents an example of the calculation of the *Bid Total* for a given contractor. The combination of adjustment factors that leads to the lowest bid total is selected as the low bid.

TABLE D2
CASE 4—ADJUSTMENT FACTORS

Adjustment Factors	
Normal Work Adjustment Factor	6:00 a.m. to 7:30 p.m. Monday–Friday
Nighttime Work Adjustment Factor	6:00 a.m. to 7:30 p.m. Monday–Thursday
Weekend Work Adjustment Factor	7:30 p.m. on Friday through 6:00 a.m. on Monday, night or day, or a holiday

TABLE D3
CASE 4—BID TOTAL CALCULATION EXAMPLE

Item Description	Approximate Quantity	Unit	Adjustment Factor	Unit Amount
Work performed during normal hours	105,000.00	Dollars	1.15	\$120,750.00
Work performed during normal hours	13,000.00	Dollars	1.2	\$15,600.00
Work performed during normal hours	7,000.00	Dollars	1.25	\$8,750.00
Bid Total				\$145,100.00

Work Order Development: Table 27 in chapter five illustrates the job order development process followed for this contract. When comparing this procedure with the one implemented by New York State DOT in Case 2, a great similarity can be seen between these two agencies. Both practices allow a high degree of interaction between the agency and the contractors.

Payment Provisions: The contractor is compensated for the work actually performed, using the unit prices contained in the Construction Task Catalog and applying the adjustment factors as required.

Mobilization Clauses: Missouri DOT includes in this type of contracts some mobilization items on its Construction Task Catalog. The set of mobilization pay items included in the catalog is determined in accordance with the scope of the contract and they are expected to be used in accordance with the specific requirements of each job order.

Price Escalation Clauses: This contract allows modifications in some specific pay items contained in the Construction Task Catalog using an index published by an external consultant.

Summary: The fact that Missouri DOT has been using job order contracts for only five years and the great similarity between the structure of this contract and the one executed by New York State DOT (explained in Case 2) suggests that Missouri DOT’s practices were probably developed based on the IDIQ contracting system of this other agency. While conducting the interview for this case, the interviewee commented that this is the second version of this type of IDIQ contract executed by Missouri DOT. Originally, this agency used on-call contracts (name used for earlier version of IDIQ contracts), but they perceived that these contracts had been negatively impacted by unbalanced bids submitted by interested contractors. Therefore, this agency decided to move forward to a methodology that improved their budget control.

The following is a list of effective practices observed in this contract in relation to IDIQ contracting procedures.

- This contract allows Missouri DOT to increase its response capability under contingency events that require asphalt pavement repair activities.

- Limiting the size of the jobsites may help Missouri DOT to easily identify project candidates for this contract. In this case, if a given project covers more than a 2-mile section of roadway, it would be disqualified for this contract.
- The use of the Construction Task Catalog allows greater budget control by Missouri DOT, preventing bidders from submitting unbalanced bids.

NOISE WALL MAINTENANCE AND REPAIR

From all agencies mentioned in chapter five and this appendix using IDIQ contracts to procure maintenance and or construction services, Minnesota DOT is the one with least IDIQ experience. However, between April 2013 and February 2014 (ten months), this agency successfully awarded 23 IDIQ contracts for a wide variety of projects including bituminous surfacing, micro-surfacing, seal coating, milling, noise wall construction, and drainage projects. The inclusion of this contract in the study provides an example of an IDIQ contract with a narrower scope of maintenance/repair activities than the MoDOT case. This case is restricted to the maintenance and repair of existing noise walls. The contract was procured using the same methodology that Minnesota DOT has successfully used to procure more complex and larger construction projects as those mentioned above in this paragraph. This case shows the characteristics of an IDIQ contract executed through a procurement methodology that is still under development, but which seems to becoming a useful tool for this agency to award recurrent tasks.

Case 5—Minnesota DOT: Noise Walls

IDIQ Contract Terminology: IDIQ Contract

Work Order Terminology: Task Order

IDIQ Contracting Model: Single Award IDIQ

Minimum Guaranteed Value: \$750,000. It was originally stated at \$300,000.

Maximum Value: \$2,500,000

Minimum Value per Work Order: A minimum value per work order was not established for this contract.

Maximum Value per Work Order: A maximum value per work order was not established for this contract.

Project Delivery Method: DBB

Scope: This contract scope comprised maintenance/repair activities for existing noise walls located in Minnesota DOT Metro District, specifically in Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties. Work orders in this contract are expected to include the following services:

“[...] removing any plywood, removing in place noise wall wood planking except for the bottom board, furnishing and installing new treated wood planking on the existing posts, and salvage and re-installing rub rail at locations where removed” (MnDOT 2013b).

The IFB for this contract presented to contractors a preliminary priority list of in-place walls planned to be included in the task orders, proving to bidders a better insight of the contract in order for them to submit more responsive proposals. Furthermore, bidders noticed that each task order was expected to cover at least 1,000 lineal feet and typically one wall, giving them more information about the characteristics of the work orders. Figure D3 shows anticipated contract locations on three different counties; Dakota, Ramsey, and Washington. As mentioned above, this contract also anticipated work on three more counties.



FIGURE D3 Case 5—Contract locations in Dakota, Ramsey, and Washington counties.

Advertise/Award Procedures: This contract uses a low-bid procurement bidding process to select a single contractor to perform all work orders. The IFB is advertised to solicit a price proposal, and some information that the agency will evaluate to determine which proposer is the lowest responsible bidder. Table 28 in chapter five illustrates the advertise/award process used by Minnesota DOT in all its IDIQ contracts. Price proposal consists of a *Bid Schedule* including all pay items to be required for the execution of all task orders issued under the contract. Likewise, the Bid Schedule contains bid quantities used to select the low-bid which correspond to a rough draft of total work quantities for the entire contract. The contract was then awarded to the bidder that submitted the lowest price proposal calculated by totaling the extended prices in the price proposal. This is a straightforward process similar to the one used by CFLHD in Case 1, but conducted for the selection of a single contractor.

Work Order Development: Table 28 also illustrates the process followed to develop task orders under this contract. Basically, Minnesota DOT identifies the project and prepares the task order document using pay items and unit prices contained in the Bid Schedule. Then it is sent to the contractor for signature. Once the task order document is signed, the agency proceeds to issue the notice to proceed and the contractor begins with the construction/maintenance activities. After task order completion, the agency must determine if the work delivered by the contractor is consistent with the contract and task order documents. The agency does not disburse the final payment to the contractor until all work has been accepted.

Payment Provisions: Payments are made to the contractor in accordance with the actual quantity of work performed and the unit prices contained in the Bid Schedule.

Mobilization Clauses: This contract does not include a separate mobilization pay item. Instead, bidders must consider these expenses when preparing price proposals.

Price Escalation Clauses: In order to compensate contractors for any possible increase in construction prices, this contract provides for adjustments of all items in the Bid Schedule by 2% once per year on the anniversary date of the letting of this Contract.

Summary: This is a unit price IDIQ contract executed through simple procurement procedures. There are a number of factors that allow inferring that this case may be perceived by potential bidders as a low risk contract, making it easier for them to prepare price proposals. These factors are: the narrow scope of the contract, the preliminary priority list of potential projects, the minimum section of wall to be repaired with a task order, and the use of a minimum guaranteed amount, which in fact was modified in favor of the contractors and is relatively high in comparison with other IDIQ contracts executed by other agencies.

The following is a list of effective practices observed in this contract in relation to IDIQ contracting procedures.

- The inclusion of a minimum guaranteed amount works as an incentive to contractors for the submission of lower price proposals.
- The narrow scope of the contract, the inclusion of a preliminary list of projects in the solicitation, and the determination of a minimum section of wall to be repaired with each task order, allows the contractor to better predict the requirements and characteristics of the work orders. It reduces the level of uncertainty and the need for large contingencies in price proposals.
- The elaboration of the preliminary priority list of projects allows MnDOT to elaborate more efficient Bid Schedules.
- The uniformity of the scope permits the estimation of proportional bid quantities, increasing the confidence of Minnesota DOT with regard to the selection of the low bid.

STATEWIDE BRIDGE DESIGN ENGINEERING SERVICES

This contract has two relevant characteristics that make it a good case for this report; it is an IDIQ contract for design services and it was awarded to multiple firms. This case provides an insight of multiple award practices implemented by state DOTs. Some features of this contract have been referenced in the report given the singularity of this approach. Unlike multiple award federal contracts, all contract documents reviewed for this report in relation to this IDIQ contracting model showed a clear trend for the use of non-competitive work orders in multiple award IDIQ contracts. This case can be used as a reference to compare these practices at the state and federal level. Chapter four of this report contains more information related to the use of this type of contracts by state agencies.

Case 6—South Carolina DOT: Bridge Design Engineering Services

IDIQ Contract Terminology: On-Call Contract

Work Order Terminology: On-Call

IDIQ Contracting Model: Multiple Award IDIQ

Minimum Guaranteed Value: A minimum guaranteed value was not established for this contract.

Maximum Value: \$2,500,000 per firm

Minimum Value per Work Order: A minimum value per work order was not established for this contract.

Maximum Value per Work Order: A maximum value per work order was not established for this contract.

Number of Awardees: 6 (Six)

Scope: This multiple award contract was awarded by the South Carolina DOT in January 2014 for the procurement of bridge design engineering services for the “preparation of preliminary plans, right of way plans, and final construction plans for roadways and bridges” (SCDOT 2014) across the state. Work orders under this contract may include the following services: “surveys, roadway design, hydrology/hydraulics, construction support services, utility coordination, geotechnical borings and design engineering, environmental documentation and permitting, bridge and structural design, and other related duties deemed necessary” (SCDOT 2014).

Advertise/Award Procedures: This contract used a QBS procedure for the selection of six successful firms. Table D4 comprises the selection criteria used to evaluate each consultant firm and the weight assigned to each selection factor. Consultant firms were required to submit a set of documents to allow South Carolina DOT to score them on each factor contained in this table. After scoring all qualification packages, all firms are ranked and those with the six highest scores are selected to participate in the contract.

TABLE D4
CASE 6—SELECTION CRITERIA

Criteria	Weight
Experience, qualifications, and technical competence of the staff proposed for the type of work required	35%
Past performance of the firm/team on similar type projects	25%
Responsiveness to the SCDOT, and the availability/readiness of the proposed staff	15%
Team makeup; ability of firm to perform all aspects of the services	10%
Familiarity of the firm/team with SCDOT practices and procedures	10%
DBE utilization plan	5%

Work Order Placement Procedures: The procedure used by South Carolina DOT to distribute work orders among awardees is also mentioned in chapter four along with other approaches used by some state DOTs. Work order placement procedures used in this contract are divided into two stages. On-calls are initially assigned in accordance with selection ranking. “Once the list has been exhausted, work will then be assigned to best maintain equity in the value of work unless an exception is approved” (SCDOT 2014). Figure D4 illustrates this process.

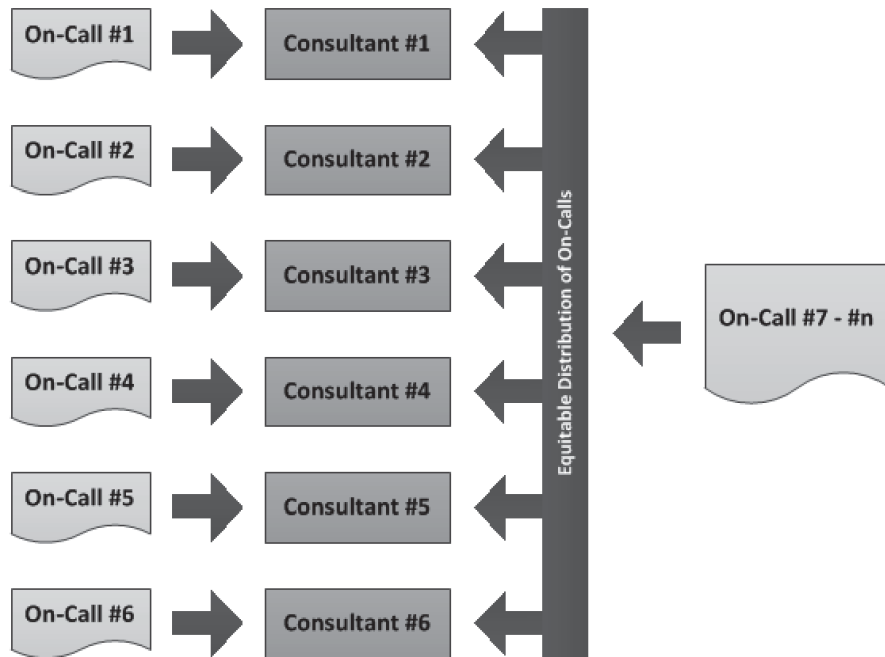


FIGURE D4 Case 6—On-call placement process.

Payment Provisions: Prices for all services under this contract are individually negotiated between South Carolina DOT and each consultant firm. These negotiations do not have an impact (positive or negative) on the ability of consultant firms to be considered for the performance of any work order.

Mobilization Clauses: This contract does not include mobilization clauses.

Price Escalation Clauses: This contract does not include price escalation clauses.

Summary: This case corresponds to a multiple award on-call contract executed by South Carolina DOT. This particular contract is intended to procure bridge design engineering services. However, this DOT uses the same approach to procure a wide range of professional services. The main difference between this approach and typical multiple award federal contracts is the lack of competition to assign the work order among awardees. In comparison with other multiple award approaches implemented by other states DOTs, this contract provides for an equitable distribution of the work order. Likewise, while this contract was awarded to a predetermined number of consultant firms, some agencies such as Delaware, Maine, and Vermont DOTs award all responsive and responsible contractors.

The following is a list of effective practices observed in this contract in relation to IDIQ contracting procedures.

- The execution of this multiple award contract allows South Carolina DOT quick access to a pool of contractors increasing the capabilities of this contracting approach.
- By awarding a predetermined number of consultant firms, the agency is able to guarantee work for all awardees. It would not be possible for Delaware, Maine, and Vermont DOTs approaches since they award an indefinite number of firms.

EMERGENCY BRIDGE REPLACEMENT

This project was selected for inclusion in this report because it illustrates the use of an IDIQ contracting at the work order level as a response strategy for emergency situations. This was just a single work order that was part of a much larger overall disaster response that was necessitated by the flooding that occurred as a result of Hurricane Irene/Tropical Storm Lee in August and September 2011. Additionally, this case shows how early contractor involvement in the design process in much the same manner as a CMGC project yields a highly constructable design to be completed in a very short period of time. The high degree of interaction that New York State DOT maintained with its contractors in IDIQ contracts has been previously highlighted in Case 2.

Case 7—New York State DOT: 981G Ramapo River Bridge Replacement (Work Order)

IDIQ Contract Terminology: Stand-by Contract

Value of Work Order: \$1,400,000

Scope: Design and construction of two-lane bridge over the Ramapo River. Demolition of existing concrete arch bridge damaged by flooding from Hurricane Irene/Tropical Storm Lee. Both abutments were undermined and the superstructure failed as the foundation settled (see Figure D5). The approach to the bridge was then washed out making it impassable. The replacement bridge was designed by the New York State DOT Main Office Structures Design Bureau. The design was purposely constrained around the use of available structural steel members. The same was true for the design of the precast deck and approach slab panels. Information on the availability of construction materials was furnished by the Statewide Emergency Bridge Contractor (Secrist et al. 2011).



FIGURE D5 Case 7—Ramapo River Bridge damage.

Right-of-Way: Right-of-way was not an issue in this project.

Permitting: Executive Order declaring emergency temporarily suspended the routine permitting process, which eliminated most permitting issues.

Rationale: New York State DOT was faced with massive infrastructure damage in the wake of the two storms. The scope of the recovery operation provides a suitable context within which to understand this particular emergency project. In a nutshell, New York State DOT accomplished the following work as part of the recovery effort:

- Repaired 1,300 miles of roadway, repaired 37 bridges and 250+ culverts using internal maintenance crews.
- Emplaced 12 temporary bridges—11 owned by the DOT and the last one owned by a contractor.
- Awarded 14 emergency restoration contracts in 4 weeks.

The NYSDOT had instituted an IDIQ contract (called a stand-by contract in the DOT’s terminology) for emergency bridge repair and replacement services in 2007 (NYSDOT 2007b). The contract “allows the Department to replace collapsed or otherwise unusable bridges on an emergency basis... [and] to perform other emergency bridge work such as structural repairs, erecting shoring to stabilize a damaged bridge, or demolition, removal, and disposal of a damaged superstructure or bridge components” (NYSDOT 2007b). This contract is one of a number of tools available to the department for use as determined by the New York State DOT emergency response system.

Procurement: In the Ramapo Bridge Replacement Project, the IDIQ for emergency bridge construction was linked with in-house design teams in a delivery method that mirrors CMGC project delivery, which allows the construction contractor to make substantial input to the design process through constructability reviews, furnishing pricing information on available construction materials, and synchronizing the design with the construction means and methods (West et al. 2012). In this case, the statewide Emergency Bridge contractor furnished information to the in-house design team regarding accelerated bridge construction methods (ABC) which led to the decision to utilize off-the-shelf precast bridge deck and approach slab panels as well as to design around readily available steel sections. Because the IDIQ contract was in place, no time was wasted on the procurement process.

Time Line: Table D5 is the timeline that was followed to replace the Ramapo River Bridge.

TABLE D5
981G RAMAPO RIVER BRIDGE REPLACEMENT PROJECT TIMELINE (Secrist et al. 2011)

Date	Event	Remarks
August 25, 2011	Executive Order (EO) 17 declaration of emergency	
August 31, 2011	Inspection of damaged bridge completed	This is merely 1 of over 500 bridges inspected in the aftermath of the event.
September 1, 2011	EO 19 temporary suspension of contracting competition provisions	Provides NYSDOT flexibility to address critical needs
September 11, 2011	Construction begins	10 days from inspection completion
September 19, 2011	Design of replacement bridge complete	20 days from inspection completion
October 26, 2011	Permanent bridge completed	57 days from inspection completion; 5 days ahead of schedule

Summary: The NYSDOT response to the massive amount of damage caused by Hurricane Irene and Tropical Storm Lee in the Hudson River Valley furnishes a model for wide-scale infrastructure repair and restoration. The 981G Ramapo River Bridge Replacement Project was only one among many disruptions of vital transportation service that needed to be restored, and the fact that NYSDOT had the prescience to put the necessary emergency construction capacity in place years before the disaster; through its Statewide Emergency Bridge IDIQ contract it was able to restore service in less than two months.

The following is a list of effective practices observed in this contract in relation to IDIQ contracting procedures.

- IDIQ contract for emergency bridge repair on a statewide basis. It must be noted that the contract also contains provisions to erect temporary bridges that are stockpiled at a bridge park on Long Island (Secrist et al. 2011).
- Integrated in-house design with Statewide Emergency Bridge Contractor input, using a process similar to CMGC.
- Constrained the design team to using available steel sections.
- Employed accelerated bridge construction techniques including standard precast bridge deck and approach slab panels.

APPENDIX E

IDIQ—Federal Acquisition Regulation Provision

This appendix presents the provision contained in the FAR to define and regulate the use of IDIQ practices on federally funded projects (48 CFR 16.504).

16.504 Indefinite-quantity contracts.

(a) Description. An indefinite-quantity contract provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The Government places orders for individual requirements. Quantity limits may be stated as number of units or as dollar values.

(1) The contract must require the Government to order and the contractor to furnish at least a stated minimum quantity of supplies or services. In addition, if ordered, the contractor must furnish any additional quantities, not to exceed the stated maximum. The contracting officer should establish a reasonable maximum quantity based on market research, trends on recent contracts for similar supplies or services, survey of potential users, or any other rational basis.

(2) To ensure that the contract is binding, the minimum quantity must be more than a nominal quantity, but it should not exceed the amount that the Government is fairly certain to order.

(3) The contract may also specify maximum or minimum quantities that the Government may order under each task or delivery order and the maximum that it may order during a specific period of time.

(4) A solicitation and contract for an indefinite quantity must—

(i) Specify the period of the contract, including the number of options and the period for which the Government may extend the contract under each option;

(ii) Specify the total minimum and maximum quantity of supplies or services the Government will acquire under the contract;

(iii) Include a statement of work, specifications, or other description, that reasonably describes the general scope, nature, complexity, and purpose of the supplies or services the Government will acquire under the contract in a manner that will enable a prospective offeror to decide whether to submit an offer;

(iv) State the procedures that the Government will use in issuing orders, including the ordering media, and, if multiple awards may be made, state the procedures and selection criteria that the Government will use to provide awardees a fair opportunity to be considered for each order (see 16.505(b)(1));

(v) Include the name, address, telephone number, facsimile number, and e-mail address of the agency task and delivery order ombudsman (see 16.505(b)(8)) if multiple awards may be made;

(vi) Include a description of the activities authorized to issue orders; and

(vii) Include authorization for placing oral orders, if appropriate, provided that the Government has established procedures for obligating funds and that oral orders are confirmed in writing.

(b) Application. Contracting officers may use an indefinite-quantity contract when the Government cannot predetermine, above a specified minimum, the precise quantities of supplies or services that the Government will require during the contract period, and it is inadvisable for the Government to commit itself for more than a minimum quantity. The contracting officer should use an indefinite-quantity contract only when a recurring need is anticipated.

(c) Multiple award preference—

(1) Planning the acquisition.

(i) Except for indefinite-quantity contracts for advisory and assistance services as provided in paragraph (c)(2) of this section, the contracting officer must, to the maximum extent practicable, give preference to making multiple awards of indefinite-quantity contracts under a single solicitation for the same or similar supplies or services to two or more sources.

(ii) (A) The contracting officer must determine whether multiple awards are appropriate as part of acquisition planning. The contracting officer must avoid situations in which awardees specialize exclusively in one or a few areas within the statement of work, thus creating the likelihood that orders in those areas will be awarded on a sole-source basis; however, each awardee need not be capable of

performing every requirement as well as any other awardee under the contracts. The contracting officer should consider the following when determining the number of contracts to be awarded:

- (1) The scope and complexity of the contract requirement.
- (2) The expected duration and frequency of task or delivery orders.
- (3) The mix of resources a contractor must have to perform expected task or delivery order requirements.
- (4) The ability to maintain competition among the awardees throughout the contracts' period of performance.

(B) The contracting officer must not use the multiple award approach if—

- (1) Only one contractor is capable of providing performance at the level of quality required because the supplies or services are unique or highly specialized;
- (2) Based on the contracting officer's knowledge of the market, more favorable terms and conditions, including pricing, will be provided if a single award is made;
- (3) The expected cost of administration of multiple contracts outweighs the expected benefits of making multiple awards;
- (4) The projected task orders are so integrally related that only a single contractor can reasonably perform the work;
- (5) The total estimated value of the contract is less than the simplified acquisition threshold; or
- (6) Multiple awards would not be in the best interests of the Government.

(C) The contracting officer must document the decision whether or not to use multiple awards in the acquisition plan or contract file. The contracting officer may determine that a class of acquisitions is not appropriate for multiple awards (see Subpart 1.7).

(D)

(1) No task or delivery order contract in an amount estimated to exceed \$103 million (including all options) may be awarded to a single source unless the head of the agency determines in writing that—

- (i) The task or delivery orders expected under the contract are so integrally related that only a single source can reasonably perform the work;
 - (ii) The contract provides only for firm-fixed price (see 16.202) task or delivery orders for—
 - (A) Products for which unit prices are established in the contract; or
 - (B) Services for which prices are established in the contract for the specific tasks to be performed;
 - (iii) Only one source is qualified and capable of performing the work at a reasonable price to the Government; or
 - (iv) It is necessary in the public interest to award the contract to a single source due to exceptional circumstances.
- (2) The head of the agency must notify Congress within 30 days after any determination under paragraph (c)(1)(ii)(D)(1)(iv) of this section.
- (3) The requirement for a determination for a single-award contract greater than \$103 million:
- (i) Is in addition to any applicable requirements of Subpart 6.3.
 - (ii) Is not applicable for architect-engineer services awarded pursuant to Subpart 36.6.

(2) Contracts for advisory and assistance services.

(i) Except as provided in paragraph (c)(2)(ii) of this section, if an indefinite-quantity contract for advisory and assistance services exceeds 3 years and \$12.5 million, including all options, the contracting officer must make multiple awards unless—

- (A) The contracting officer or other official designated by the head of the agency determines in writing, as part of acquisition planning, that multiple awards are not practicable. The contracting officer or other official must determine that only one contractor can reasonably perform the work because either the scope of work is unique or highly specialized or the tasks so integrally related;
- (B) The contracting officer or other official designated by the head of the agency determines in writing, after the evaluation of offers, that only one offeror is capable of providing the services required at the level of quality required; or
- (C) Only one offer is received.

(ii) The requirements of paragraph (c)(2)(i) of this section do not apply if the contracting officer or other official designated by the head of the agency determines that the advisory and assistance services are incidental and not a significant component of the contract.

APPENDIX F

Research Needs Statements

**AASHTO STANDING COMMITTEE ON RESEARCH
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS**

I. PROBLEM NUMBER

To be assigned by NCHRP staff.

II. PROBLEM TITLE

A Guidebook for Multiple-Award IDIQ Contracting as a Means to Increase Price Competition

III. RESEARCH PROBLEM STATEMENT

Transportation agencies are increasingly implementing alternative contracting methods (ACMs) to deliver their construction and maintenance projects. One of those ACMs is called Indefinite Delivery/Indefinite Quantity (IDIQ) contracts. This method awards a single contract to deliver construction and/or maintenance services on an unspecified number of similar projects over a specified period of time. The projects are called Task Orders, Job Orders, Work Orders, and other terms. They are essentially limited in the scope to a standard set of pay items that are anticipated to comprise the typical Task Order, and once awarded using a low bid for the first Task Order, a single contractor then is issued subsequent Task Orders as required during the period of the contract. Single award IDIQs are characterized by a guaranteed minimum amount of work (normally Task Order #1), a not to exceed amount for future work and a period of performance that often covers two years with options to extend a specific number of times. While these contracts have been found to be very effective, they come with two disadvantages. First, the DOT must provide for escalating Task Orders awarded in the out-years to avoid unnecessarily large contingencies built into the unit prices. Thus, it is possible to overpay for out-year work if the escalation factor is larger than the actual rate or to incur contingencies anyway, if the competing contractors believe the rate is too low. The second disadvantage is that once the IDIQ is awarded competition between contractors is over. As DOTs get more experienced with IDIQ, one would expect that like the federal agencies that have been using these contracts for three decades, the agencies will begin awarding larger and longer contracts. An example is the US Naval Facility Engineering Command which has awarded nationwide DB IDIQ contracts with a capacity of over \$200 million to design and build specialty projects like medical or communications facilities with estimated Task Order amounts exceeding \$20 million each. Federal agencies dealt with this issue by developing multiple-award IDIQ contracting procedures where a pool of 3 or 4 contractors are selected on a basis of qualifications and other factors and then those contractors compete with each other for each Task Order. This arrangement satisfies both issues. Since the contractors compete for each task order, value for money is demonstrated and there is no need to estimate escalation as each task order will be awarded to the low bidder based on current market conditions.

NCHRP Synthesis 45-09: *Indefinite Delivery/Indefinite Quantity Contracting* found that while there are a few DOTs that have experimented with multiple-award IDIQs, there is no substantive implementation guidance for their use in IDIQ contracts. However, the federal experience combined with the anecdotal experience at the state-level provides a foundation of experiential information from which to draw and on-going programs which can be adapted to meet the needs of state transportation agencies.

The proposed research should address the following questions:

- What types of construction and maintenance projects are best suited for multiple-award IDIQ contracts?
- What are the appropriate procedures for accepting, reviewing and evaluating contractor qualifications in a multiple-award IDIQ procurement?

- What are the appropriate practices in contractually implementing competitive bids for multiple-award IDIQ contracts?
- Are there procedures for evaluating the optimal number of contractors in the multiple-award IDIQ pool?
- What are effective practices to estimate the value of an average Task Order, and evaluate its impact on construction schedules, produce the necessary design documents, and guarantee that permitting will be available in a timely manner?
- Is it possible to obtain programmatic permits for multiple-award IDIQ Task Orders that are developed using DB or CMGC delivery procedures?

IV. RESEARCH OBJECTIVE

The main research objective is to benchmark the state-of-the-practice in using multiple-award IDIQ contracts and combine it with existing research on construction procurement and project delivery procedures, processes and policies. This study will assemble a set of effective practices and develop a guidebook that can be utilized by agencies to implement based on local statutory and/or policy requirements to implement multiple-award IDIQ contracts. The guidebook should include a methodology to compare delivery of IDIQ projects on both a single-award and multiple-award basis to permit agencies to determine which approach would be preferred for a given construction or maintenance IDIQ contract.

Specific Tasks of the research to accomplish the main objective include:

- **Task 1**—Benchmark the state-of-the-practice by federal, state, and local agencies in the use of multiple-award IDIQ procurement for both horizontal and vertical projects. Survey public agencies to determine if there are any using a rational methodology to select multiple-award over single award IDIQs.
- **Task 2**—Review the legal issues involved with multiple-award IDIQ procurements with respect to statutory competition constraints, design liability, and other salient issues that pose potential barriers to implementation of the concept. Identify remedies, if any, that have been successfully implemented; Prepare a white paper documenting the results of Tasks 1 and 2.
- **Task 3**—Based on the results of Tasks 1 and 2, prepare a research work plan that describes the details of the research methodology and methods for identifying potential effective practices and developing authoritative conclusions that will lead to the accomplishment of the research objectives and the final guidebook. The plan shall include a detailed description of any statistical analysis methods, qualitative research instruments and a justification that is well grounded in the literature to their use.
- **Task 4**—Develop a rational methodology for selecting 5 to 8 federal and state multiple-award IDIQ projects that would be similar to the types of contracts present in a typical DOT annual program. Provide a list of potential case study candidates for approval by the NCHRP project panel.
- **Task 5**—Execute the research work plan and prepare an interim research report that articulates the case study data collection and analysis as well as emerging conclusions, effective practices, lessons learned and a proposed outline for the guidebook. Include appendices that contain the details of the case study analysis written in a form that permits it to be published separately as a stand-alone report should the NCHRP panel decide that would be appropriate. Also include appendices that contain samples of multiple-award IDIQ solicitation and task order language; general/special provisions and enabling legislation, if any.
- **Task 6**—Prepare the draft guidebook for implementing multiple-award IDIQ contracts on construction and maintenance projects delivered with DBB, CMGC, and DB. The guide will also provide instructions for implementing the proposed procurement process for an agency's annual program. Incorporate review comments as required and validate the guidebook's efficacy with a case study DOT.
- **Task 7**—Publish the final guidebook and a final research report that details the full results of the research.

V. ESTIMATE OF PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding:

Recommended funding for the project is \$400,000 to \$500,000.

Research Period:

It is estimated that 30 months will be required to perform the research.

The anticipated budget and schedule are based on assumptions for required resources to support on-site collection of agency case study project data, the assembly of the contents of the guidebook and validation of the guidebook in the field directly with a case study DOT.

VI. URGENCY, PAYOFF POTENTIAL, AND IMPLEMENTATION

The intent of this project is to furnish a uniform set of guidelines for the application of multiple-award IDIQ contracts for construction and maintenance project procurement to increase competition for IDIQ Task Orders and eliminate the need for establishing escalation provisions. The payoff will be an ability for DOTs to better demonstrate value for money to the public while accruing the benefits associated with an expedited procurement cycle for projects that are similar in scope, size, and technical complexity. Additionally, NCHRP Syntheses 45-09 and 43-11 *NCHRP Synthesis 438: Expedited Procurement Procedures for Emergency Construction Services* found evidence that IDIQs create an ability to be able to rapidly react to both urgent and emergency repair and replacement requirements because the contractors are already under contract and mobilized in the DOT's jurisdiction.

Based on the experience of those DOTs that have already implemented IDIQ, the payoff of this research will be significant in both construction cost and time savings. The implementation of IDIQs has also been proven to provide an expeditious manner to obligate year-end funding for projects that may have not been in the current annual program because the procurement is already complete.

VII. RELATED RESEARCH

NCHRP Synthesis 45-09: *Indefinite Delivery/Indefinite Quantity Contracts*.

NCHRP Synthesis 43-11: *Expedited Procurement Procedures for Emergency Construction Services*

Final Report for SHRP 2 C 12: The Effect of Public-Private Partnerships and Non-Traditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making.

VIII. PERSON(S) DEVELOPING THE PROBLEM

IX. PROBLEM MONITOR

The TRB Committees AFH15 Project Delivery Methods is submitting this problem statement through the sponsorship of the U.S. Department of Transportation.

X. DATE AND SUBMITTED BY

TBD

AASHTO STANDING COMMITTEE ON RESEARCH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

I. PROBLEM NUMBER

To be assigned by NCHRP staff.

II. PROBLEM TITLE

A Critical Analysis of IDIQ Contracting Use Construction Task Catalogs and Adjustment Factors.

III. RESEARCH PROBLEM STATEMENT

Transportation agencies are increasingly implementing alternative contracting methods (ACMs) to deliver their construction and maintenance projects. One of those ACMs is called Indefinite Delivery/Indefinite Quantity (IDIQ) contracts. This method awards a single contract to deliver construction and/or maintenance services on an

unspecified number of similar projects over a specified period of time. The projects are called Task Orders, Job Orders, Work Orders, and other terms. They are essentially limited in the scope to a standard set of pay items that are anticipated to comprise the typical Task Order, and once awarded using a low bid for the first Task Order, a single contractor then is issued subsequent Task Orders as required during the period of the contract. Pricing for IDIQ contracts can be completed in a number of ways. The most common is to establish a list of pay items that comprise the scope of work for a typical task order; have competing contractors bid the first task order; and then unit prices are established by the low bidder and used for subsequent task orders. Some agencies will develop an IDIQ unit price book, commonly called a construction task catalog, based on state bid tabulations. Competing contractors are then asked to bid an adjustment factor with which the catalog unit prices will be multiplied. The contract is then awarded to the lowest adjustment factor, which can be both greater than or less than one. A similar approach employs a commercial price database which is purchased from a vendor in lieu of an agency developed catalog. All three approaches have been successfully employed by at least one state DOT, and each has its own particular advantages and disadvantages. The federal government also has experience with all three pricing methodologies as do a number other state and local agencies.

NCHRP Synthesis 45-09: *Indefinite Delivery/Indefinite Quantity Contracting* found that while there are a few DOTs that have experimented with construction task catalogs for IDIQ pricing, there is no substantive implementation guidance for their use in IDIQ contracts. However, the federal experience combined with the anecdotal experience at the state-level provides a foundation of experiential information from which to draw and on-going programs which can be adapted to meet the needs of state transportation agencies.

The proposed research should address the following questions:

- What types of construction and maintenance projects are best suited for IDIQ contracts utilizing construction task catalogs or commercial unit price books?
- What are the appropriate procedures for ensuring that proposed adjustment factors actually reflect a reasonable construction cost in an IDIQ procurement?
- What are the appropriate practices in contractually implementing competitive bids for IDIQ contracts priced using construction task catalogs and adjustment factors?
- What are the advantages and disadvantages of the two methods for establishing the prices in a construction task catalog?
- Is there value added to the IDIQ procurement process by the construction task catalog over bidding the first task order? If so, what are the costs and benefits of each?

IV. RESEARCH OBJECTIVE

The main research objective is to benchmark the state-of-the-practice in using construction task catalogs with adjustment factors to price IDIQ contracts and combine it with existing research on construction procurement and project delivery procedures, processes and policies. This study will critically analyze the two forms of construction task catalog pricing for IDIQ contracts and compare it to the more common low bid single award method for setting IDIQ pay item unit prices. The research will develop a methodology to compare all three pricing options for IDIQ projects on both a single-award and multiple-award basis to permit agencies to determine which approach would be preferred for a given construction or maintenance IDIQ contract.

Specific Tasks of the research to accomplish the main objective include:

- **Task 1**—Benchmark the state-of-the-practice by federal, state, and local agencies in the use of construction task catalog and adjustment factor IDIQ procurement for both horizontal and vertical projects. Propose a methodology for quantitatively comparing the two forms of catalog pricing against low bid pricing for a set of case study IDIQ projects obtained from a survey of federal, state and local agencies that use IDIQ procurement.
- **Task 2**—Review the legal issues involved with construction task catalog and adjustment factor IDIQ procurements with respect to statutory competition constraints, award mandates, and other salient issues that pose potential barriers to implementation of the concept. Identify remedies, if any, that have been successfully implemented; Prepare a white paper documenting the results of Tasks 1 and 2.

- **Task 3**—Based on the results of Tasks 1 and 2, prepare a research work plan that describes the details of the research methodology and methods for identifying potential effective practices and developing authoritative conclusions that will lead to the accomplishment of the research objectives and the final guidebook. The plan shall include a detailed description of any statistical analysis methods, qualitative research instruments and a justification that is well grounded in the literature to their use.
- **Task 4**—Develop a rational methodology for selecting 5 to 8 federal and state construction task catalog IDIQ contracts that would be similar to the types of contracts present in a typical DOT annual program. Provide a list of potential case study candidates for approval by the NCHRP project panel.
- **Task 5**—Execute the research work plan and prepare an interim research report that articulates the case study data collection and analysis as well as emerging conclusions, effective practices, lessons learned and a proposed outline for the critical analysis of each alternative. Include appendices that contain the details of the case study analysis written in a form that permits it to be published separately as a stand-alone report should the NCHRP panel decide that would be appropriate. Also include appendices that contain samples of construction task catalog and adjustment factor IDIQ solicitations and task order language; general/special provisions and enabling legislation, if any.
- **Task 6**—Prepare the draft report documenting the results of the analysis of the case study IDIQ. Provide a plan for implementing construction task catalogs and adjustment factors that provide sufficient guidance for a DOT to utilize one or more approaches in their IDIQ program.
- **Task 7**—Publish the final implementation plan and a final research report that details the full results of the research.

V. ESTIMATE OF PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding:

Recommended funding for the project is \$100,000 to \$150,000.

Research Period:

It is estimated that 12 months will be required to perform the research.

The anticipated budget and schedule are based on assumptions for required resources to support on-site collection of agency case study project data. .

VI. URGENCY, PAYOFF POTENTIAL, AND IMPLEMENTATION

The intent of this project is to furnish a uniform set of guidelines for the application of construction task catalogs and adjustment factors for single-award and multiple-award IDIQ contracts for construction and maintenance projects procurement to increase competition for IDIQ Task Orders and eliminate the need for establishing escalation provisions. The payoff will be the ability for DOTs to uniformly create a pricing structure for projects that are similar in scope, size, and technical complexity.

Based on the experience of those DOTs that have already implemented IDIQ, the payoff of this research will be significant in both construction cost and time savings. The implementation of IDIQs has also been proven to provide an expeditious manner to obligate year-end funding for projects that may have not been in the current annual program because the procurement is already complete.

VII. RELATED RESEARCH

NCHRP Synthesis 45-09 (473): *Indefinite Delivery/Indefinite Quantity Contracts*.

NCHRP Synthesis 43-11 (438): *Expedited Procurement Procedures for Emergency Construction Services*

Final Report for SHRP 2 C 12: *The Effect of Public-Private Partnerships and Non-Traditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making*.

VIII. PERSON(S) DEVELOPING THE PROBLEM

IX. PROBLEM MONITOR

The TRB Committees AFH15 Project Delivery Methods is submitting this problem statement through the sponsorship of the U.S. Department of Transportation.

X. DATE AND SUBMITTED BY

TBD

AASHTO STANDING COMMITTEE ON RESEARCH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

I. PROBLEM NUMBER

To be assigned by NCHRP staff.

II. PROBLEM TITLE

Guidebook for IDIQ Contracting for Architect/Engineer (A/E), Professional Services, and Research.

III. RESEARCH PROBLEM STATEMENT

Transportation agencies have been using Indefinite Delivery/Indefinite Quantity (IDIQ) contracts to procure design and other professional services. This method has many names such as General Engineering Consultant (GEC) contracts, On-Call Design contracts, Construction Engineering and Inspection (CEI) contracts, etc. Additionally, many DOTs use IDIQs to obtain research services from various universities and consultants. This issue is complicated by the need to differentiate between the procurement of design/engineering services which are covered by federal and state-level “Brooks Act” mandates for qualification-based selection (QBS) and award.

To simplify the terminology in this RNS, the previous types of IDIQ contracts will be called either consultant or research IDIQs where the consultant IDIQ is intended to cover all the project development process requirements for external services and the research IDIQ will be confined to only the procurement of research services.

NCHRP Synthesis 45-09: *Indefinite Delivery/Indefinite Quantity Contracting* found that while there is a great depth of DOT experience, there is no substantive implementation guidance for their use and little if any research on the effective practices that have developed over the years for the procurement and execution of IDIQ professional services contracts. The paucity of guidance creates a patchwork quilt of consultant/research policies, procedures, and regulations making it difficult for the consulting and academic industry to consistently evaluate the costs of providing the requested services. Research has shown that uncertainty associated with public agency contract administration increases prices as consultants include contingencies to cover the costs of dealing with the agency administrative requirements. Therefore, any standardization that is created by having a “typical” AASHTO approach to these types of contracts should accrue benefits of decreased consulting fees. The federal, state and local experience provides a massive foundation of experiential information from which to draw and on-going programs which can be adapted to meet the specific needs of state transportation agencies.

The proposed research should address the following questions:

- What types of services are best suited for IDIQ contracts?
- What are the most effective practices for consultant and research IDIQ procurement?
- What are the appropriate practices in contractually implementing competitive bids for consultant and research IDIQ contracts for services not covered by QBS mandates?
- What are the advantages and disadvantages of current methods for securing consultant and research services using IDIQ?

IV. RESEARCH OBJECTIVE

The main research objective is to benchmark the state-of-the-practice in consultant and research IDIQ contracts and combine it with existing research, such as NCHRP 15-51: *Preconstruction Services Cost Estimating* on procurement and project delivery procedures, processes and policies. This study will critically analyze each form of consultant and research IDIQ contract and compare it to single contract methods for procuring the same services. The comparison will be both quantitative and qualitative determining the cost and time benefits as well as other attributes that could be considered to add value.

Specific Tasks of the research to accomplish the main objective include:

- **Task 1**—Benchmark the state-of-the-practice by federal, state, and local agencies in the use of consultant and research IDIQ contracts for services both and not covered by QBS mandates Propose a methodology for quantitatively comparing all forms of consultant and research IDIQ contracts for a set of case study consultant and research IDIQ contracts obtained from a survey of federal, state and local agencies that use IDIQ procurement.
- **Task 2**—Review the legal issues involved with consultant and research IDIQ contracts procurements with respect to statutory competition constraints, award mandates, and other salient issues that pose potential barriers to implementation of the concept. Identify remedies, if any, that have been successfully implemented; Prepare a white paper documenting the results of Tasks 1 and 2.
- **Task 3**—Based on the results of Tasks 1 and 2, prepare a research work plan that describes the details of the research methodology and methods for identifying potential effective practices and developing authoritative conclusions that will lead to the accomplishment of the research objectives and the final guidebook. The plan shall include a detailed description of any statistical analysis methods, qualitative research instruments and a justification that is well grounded in the literature to their use.
- **Task 4**—Develop a rational methodology for selecting 15 to 20 state consultant and research IDIQ contracts that would be similar to the types of contracts present in a typical DOT annual program. Provide a list of potential case study candidates and the methodology for approval by the NCHRP project panel.
- **Task 5**—Execute the research work plan and prepare an interim research report that articulates the case study data collection and analysis as well as emerging conclusions, effective practices, lessons learned and a proposed outline for the guidebook content on each alternative. Include appendices that contain the details of the case study analysis written in a form that permits it to be published separately as a stand-alone report should the NCHRP panel decide that would be appropriate. Also include appendices that contain samples of consultant and research IDIQ solicitations and task order language; general/special provisions and enabling legislation, if any.
- **Task 6**—Prepare the draft report documenting the results of the analysis of the case study IDIQ. Provide a plan for implementing consultant and research IDIQ contracts that provide sufficient guidance for a DOT to utilize one or more approaches in their IDIQ program.
- **Task 7**—Publish the final implementation plan and a final research report that details the full results of the research.

V. ESTIMATE OF PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding:

Recommended funding for the project is \$200,000 to \$250,000.

Research Period:

It is estimated that 18 months will be required to perform the research.

The anticipated budget and schedule are based on assumptions for required resources to support on-site collection of agency case study project data.

VI. URGENCY, PAYOFF POTENTIAL, AND IMPLEMENTATION

The intent of this project is to furnish a uniform set of guidelines for the application of consultant and research IDIQ contracts. The payoff will be the ability for DOTs to uniformly create a procurement structure for consultant and research IDIQ contracts. Based on the experience of those DOTs that have already implemented IDIQ, the payoff of this research is will be significant in both cost and time savings. The implementation of IDIQs has also

been proven to provide an expeditious manner to obligate year-end funding for projects that may have not been in the current annual program because the procurement is already complete.

VII. RELATED RESEARCH

NCHRP Synthesis 45-09: *Indefinite Delivery/Indefinite Quantity Contracts*.

NCHRP 15-51: *Preconstruction Services Cost Estimating Guidebook*

VIII. PERSON(S) DEVELOPING THE PROBLEM

IX. PROBLEM MONITOR

The TRB Committees AFH15 Project Delivery Methods is submitting this problem statement through the sponsorship of the U.S. Department of Transportation.

X. DATE AND SUBMITTED BY

TBD

APPENDIX G

Example IDIQ Contract Language

This appendix presents a summary of contract documents from five different state DOTs that may be used by other agencies as examples of IDIQ contract language. These contract documents may be fully accessed through the web-only electronic version of this report, which can be found at: www.trb.org, search on “NCHRP Synthesis 473.”

The first example comes from the Minnesota DOT. This contract document shows some provisions used on a basic unit price single award IDIQ contract for maintenance services. It is important to note that this was one of the first IDIQ contracts awarded by the Minnesota DOT before the completion of its IDIQ Implementation Guide. The second example, from Missouri DOT, describes the application of a construction task catalog (referred by this agency as Fixed Unit Price List) and adjustment factors. The third and fourth examples correspond to emergency IDIQ contracts advertised by the Georgia and Louisiana DOTs, respectively. The last example corresponds to a multiple award contract awarded by the California DOT to procure environmental. Tables G1–G5.

TABLE G1
EXAMPLE 1—IDIQ CONTRACT LANGUAGE

Minnesota Department of Transportation	
Features/Provisions	Description
Project Title	Noise Wall
State Project No.	8825-466
IDIQ Model	Single Award IDIQ
Location(s)	Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties
Minimum guaranteed value	\$750,000
Maximum value	\$2.5 million
Advertise/Award	IFB/Low-bid
Payment Provision	Unit Price
Content of Contract Document— This list includes only those sections that are either directly related to IDIQ contracting practices or may be of interest to other agencies.	Addendum No. 1 Addendum No. 2 DIVISION S S-2 Pre-letting Conference S-7 Preparation of Proposal S-8 Delivery of Proposal S-9 Withdrawal or Revision of Proposals S-11 Consideration of Proposals (IDIQ) S-12 Requirement of Contract Bond S-15 Cooperation by Contractors S-16 Supervision by Contractor S-20 Claims for Compensation Adjustment S-29 Responsibility for Damage Claims: Insurance S-33 Determination and Extension of Contract Time S-34 Failure to Complete the Work on Time S-35 Compensation for Increased or Decreased Quantities S-37.1 Cost Escalation S-38 Mobilization S-54 Final Estimate and Final Payment

TABLE G2
EXAMPLE 2—IDIQ CONTRACT LANGUAGE

Missouri Department of Transportation	
Features/Provisions	Description
Project Title	Asphalt Pavement Repair—Route I-55/I-57
Job No.	J2I2165T
IDIQ Model	Single Award IDIQ
Location(s)	Route I-55: Ste. Genevieve, Perry, Cape Girardeau, and Scott counties Route I-57: Mississippi County
Minimum guaranteed value	N/A
Maximum value	\$125,000
Advertise/Award	IFB/Low-bid using a Fixed Unit Price List and Adjustment Factors bid by contractors
Payment Provision	Unit Price
Content of Contract Document— This list includes only those sections that are either directly related to IDIQ contracting practices or may be of interest to other agencies.	<ul style="list-style-type: none"> A. General B. Project Contract for Contractor/Bidder Questions C. Scope of Work D. Job Order Contract E. Procedures for Developing a Job Order F. Terms of Contract G. Fixed Unit Price List H. Adjustment Factors I. Bidding the Adjustment Factors J. Contract Award K. Bonds L. Accelerated Repair M. Notice to Proceed N. Completing the Work O. Final Inspection and Acceptance of the Work P. Liquidated Damages for Failure or Delay in Beginning and/or Completing Work On Time Q. Liquidated Damages Specified for Accelerated Repair Response R. Liquidated Damages Specified for Lane Closures S. Liquidated Damages for Winter Months T. Contract Payments X. Delay Provisions Z. Sample Job Orders AA. Emergency Provisions and Incident Management FF. Mobilization GG. Previous Work Order Information

TABLE G3
EXAMPLE 3—IDIQ CONTRACT LANGUAGE

Georgia Department of Transportation	
Features/Provisions	Description
Project Title	Emergency Inclement Weather Support
Request for Qualifications No.	48400-130-0000000007
IDIQ Model	Single Award IDIQ
Location(s)	Statewide
Minimum guaranteed value	N/A
Maximum value	N/A
Advertise/Award	RFQ/One-step QBS
Payment Provision	To be negotiated
Content of Contract Document— This list includes only those sections that are either directly related to IDIQ contracting practices or may be of interest to other agencies.	I. Background and Purpose II. Scope of Services III. Additional Information - Training IV. Notification of Interest to Participate V. Additional Terms and Conditions A. Submittal Costs and Confidentiality B. Award Conditions C. Small and Minority Business Enterprise

TABLE G4
EXAMPLE 4—IDIQ CONTRACT LANGUAGE

Louisiana Department of Transportation	
Features/Provisions	Description
Project Title	Retainer Contract for Debris Removal and Disposal Monitoring Resources
Request for Proposals No.	3000002501
IDIQ Model	Single Award IDIQ
Location(s)	District 02
Minimum guaranteed value	N/A
Maximum value	N/A
Advertise/Award	RFP/One-step best-value
Payment Provision	Unit Price (hourly rates)
Content of Contract Document— This list includes only those sections that are either directly related to IDIQ contracting practices or may be of interest to other agencies.	1. General Information 2. Administrative Information 3. Proposal Information 3.7 Subcontracting Information 3.12 Contract Award and Execution 4. Response Instructions 4.2 Proposal Format 4.4 Technical and Cost Proposal 5. Proposal Content 6. Evaluation and Selection 6.1 Evaluation Team 6.4 Evaluation and Review 6.5 Announcement of Contractor 7. Successful Contractor Requirements 7.3 Compensation 7.4 Billing and Payment 7.6 Contract Terms & Conditions Attachment I: Price Proposal (District 02) Attachment VII: Sample Contract

TABLE G5
EXAMPLE 5—IDIQ CONTRACT LANGUAGE

California Department of Transportation	
Features/Provisions	Description
Project Title	Identify and remove underground hazardous material/waste and tanks
Information for Bids No.	06A1964
IDIQ Model	Multiple Award IDIQ
Location(s)	Districts 5 to 10
Minimum guaranteed value	N/A
Maximum value	To be determined
Advertise/Award	IFB/Low-bid
Payment Provision	Unit Price
<p>Content of Contract Document— This list only shows those sections that are either directly related to IDIQ contracting practices or may be of interest to other agencies.</p>	<p>A. Purpose and Description of Service C. Bidder Minimum Qualifications D. Format for Providing Bidder Requirement Information E. Bid Requirements and Information 3. Costs Included in Bid Rates 9. Subcontractor 11. Bonds 12. Insurance 14. Bid Submittal 15. Evaluation and Selection 16. Award and Protest</p> <p>Attachments 1. Bid Proposal 5. Documents required by Contractor's Qualification Package 6. Subcontracting Provision List 11. Sample Standard Agreement Exhibit A, Scope of Work Exhibit B, Budget Detail and Payment Provisions Exhibit C, General Terms and Conditions Exhibit D, Special Terms and Conditions</p>

TABLE G.1. Example 1 - IDIQ Contract Language

Minnesota Department of Transportation

MINNESOTA DEPARTMENT OF TRANSPORTATION

395 JOHN IRELAND BOULEVARD MS 650 ST. PAUL, MINNESOTA 55155-1800

***** PROPOSAL *****
FOR HIGHWAY CONSTRUCTION AND MAINTENANCE PROJECTS WITH
BIDS RECEIVED UNTIL 9:30 O'CLOCK A.M. ON

June 7, 2013

Proposal of _____

MATTISON CONTRACTORS, INC.
811 US HWY 12
PO BOX 238
KNAPP, WI 54749
715.665.2608

(AREA CODE-TELEPHONE NUMBER)

TO FURNISH AND DELIVER ALL MATERIALS AND TO PERFORM ALL WORK IN ACCORDANCE WITH THE CONTRACT, THE PLANS AND THE APPROVED DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2005 EDITION" (USING English UNITS), ON FILE IN THE OFFICE OF THE COMMISSIONER OF TRANSPORTATION EXCEPT AS STATED OTHERWISE IN THE SPECIAL PROVISIONS, WHICH ARE PART OF THIS PROPOSAL, FOR:

PRIME SP: 8825-466 CONTRACT ID 130622
STATE PROJECT NO. 8825-466
FHWA PROJECT NO. STATE FUNDS

LOCATION: In Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington Counties on Various Trunk Highways within the Metro Area

TYPE OF WORK: Noise Walls (IDIQ)

LENGTH:

STARTING DATE: August 5, 2013 COMPLETION DATE: September 30, 2015

NOTICE TO BIDDERS: If you are submitting a bid via "Two Way Electronic" bidding, you need not return the hard copy proposal (all other requirements shall remain in effect). If you are utilizing ANY OTHER ACCEPTED METHOD OF BID SUBMITTAL, YOU MUST RETURN THE DOCUMENTS INDICATED IN 1209. You must initial changes made in the "Bid Schedule" and acknowledge addenda on Form 21126D, which is attached to the back of this proposal.

I certify that this Proposal was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Elizabeth A Buckley

Elizabeth A. Buckley, Special Provisions Engineer
Lic. No. 15494 Date: April 24, 2013

JMS

BID RIGGING IS A SERIOUS CRIME. IF YOU HAVE ANY INFORMATION CONCERNING COLLUSIVE BIDDING, EVEN A REQUEST TO SUBMIT A COMPLIMENTARY BID, PLEASE CALL THE MINNESOTA ATTORNEY GENERAL'S OFFICE AT TELEPHONE NO. 651-296-1796

To request this document in an alternative format, please contact the Affirmative Action Office at 651-366-4718 or 1-800-657-3774 (Greater Minnesota); 711 or 1-800-627-3529 (Minnesota Relay). You may also send an e-mail to ADArequest.dot@state.mn.us. (Please request at least one week in advance).

To the Commissioner of Transportation of the State of Minnesota:

Sir: According to the advertisement of the Commissioner of Transportation inviting proposals for the improvement of the section of highway hereinbefore named, and in conformity with the Contract, Plans, Specifications and Special Provisions pertaining thereto, all on file in the office of the Commissioner of Transportation:

(I)(We) hereby certify that (I am)(we are) the only person(s) interested in this proposal as principal(s); that this proposal is made and submitted without fraud or collusion with any other person, firm or corporation at all; that an examination has been made of the site of the work and the Contract form, with the Plans, Specifications and Special Provisions for the improvement.

(I)(We) understand that the quantities of work shown herein are approximate only and are subject to increase or decrease; that all quantities of work, whether increased or decreased within the limits specified in Mn/DOT 1903, are to be done at the unit prices shown on the attached schedule; that, at the time of opening bids, totals only will be read, but that comparison of bids will be based on the correct summation of item totals obtained from the unit prices bid, as provided in Mn/DOT 1301.

(I)(We) propose to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all materials specified, in the manner and at the time prescribed, all according to the terms of the Contract and Plans, Specifications, and the Special Provisions forming a part of this.

(I)(We) further propose to do all Extra Work that may be required to complete the contemplated improvement, at unit prices or lump sums to be agreed upon in writing before starting such work, or if such prices or sums cannot be agreed upon, to do such work on a Force Account basis, as provided in Mn/DOT 1904.

(I)(We) further propose to execute the form of Contract within 10 days after receiving written notice of award, as provided in Mn/DOT 1306.

(I)(We) further propose to furnish a payment bond equal to the Contract amount, and a performance bond equal to the Contract amount, with the aggregate liability of the bond(s) equal to twice the full amount of the Contract, as security for the construction and completion of the improvement according to the Plans, Specifications and Special Provisions as provided in Mn/DOT 1305.

(I)(We) further propose to do all work according to the Plans, Specifications and Special Provisions, and to renew or repair any work that may be rejected due to defective materials or workmanship, before completion and acceptance of the Project by the Commissioner of Transportation.

(I)(We) agree to all provisions of Minnesota Statutes, Section 181.59.

(I)(We) further propose to begin work and to prosecute and complete the same according to the time schedule set forth in the Special Provisions for the improvement.

(I)(We) assign to the State of Minnesota all claims for overcharges as to goods and materials purchased in connection with this Project resulting from antitrust violations that arise under the antitrust laws of the United States and the antitrust laws of the State of Minnesota. This clause also applies to subcontractors and first tier suppliers under this Contract.



Minnesota Department of Transportation

Transportation Building
395 John Ireland Blvd, M.S. 692
St Paul, MN 55155

Pre Letting Services
Tel: 651-366-4615
Fax: 651-366-4680

May 13, 2013

TO: All Planholders of Record
SUBJECT: Prime SP 8825-466
State Project No. 8825-466
STATE FUNDS
Addendum No. 1
Date of Letting: MAY 17, 2013

A) The approximate quantities shown in the following table are hereby changed as indicated, and shall be considered as such in extending the unit bid price.

Table with 6 columns: Line Number, Item Number, Item Description, Units, Existing Quantity, Revised Quantity. Row 1: 0050, 2422618/00050, WOOD NOISE BARRIER, S F, 54027.000, 10963.000

B) The following item is hereby added to the Bid Schedule. Bidders shall enter unit price and extension thereof in the appropriate locations for this line. The extension shall be included in the Grand Total of the Proposal. Failure to enter unit prices shall constitute an incomplete proposal, and shall be cause for rejection thereof.

Table with 5 columns: Line Number, Item Number, Item Description, Units, Quantity. Row 1: 0054, 2012.618, WOOD NOISE BARRIER SPECIAL, S F, 43064.000

C) The 1st sentence of the 1st paragraph of Section S-11.3 (ESTIMATED COST AND MAXIMUM TIME ALLOWED) of the Special Provisions is hereby changed to read:

The total compensation of the Contract will not exceed \$2,500,000.00 and may not be less than \$750,000.

D) The 2nd sentence of the 1st paragraph of Section S-11.3 ESTIMATED COST AND MAXIMUM TIME ALLOWED of the Special Provisions is hereby changed to read:

Each individual task order will be at least 1,000 lineal feet and typically one (1) wall.

E) The 3rd sentence the 1st paragraph of Section S-11.4 CONTRACT SCHEDULE of the Special Provisions is hereby changed to read:

Anticipated First Task Order August 5, 2013

F) The table in the 1st paragraph of Section S-11.7 TASK ORDER ITEM LIST (TOIL) of the Special Provisions is hereby changed to read:

Item Number	Description	Units
2012.602	TRAFFIC CONTROL TYPE 1	EACH
2012.602	TRAFFIC CONTROL TYPE 2	EACH
2012.602	TRAFFIC CONTROL TYPE 4	EACH
2104.503	REMOVE WOOD NOISE WALL	SQ FT
2422.618	WOOD NOISE BARRIER	SQ FT
2012.618	WOOD NOISE BARRIER SPECIAL	SQ FT

G) The following is added to Section S-11 (CONSIDERATION OF PROPOSALS (INDEFINITE DELIVERY/INDEFINITE QUANTITY)) of the Special Provisions:

S-11.9 Work Location Priority

The following is a preliminary priority list of in place noise walls that the Contractor may find included in Task Orders for this Contract. Upon satisfactory completion of Task Orders totaling the minimum Contract amount, the Contractor may be awarded subsequent Task Orders, completing satisfactory work, until the maximum Contract amount has been reached as funding is available. At that point, all work shall be terminated.

Priority	Wall #	Description - Approximate Location	See Attachment
1	234/240	Right of SB 52 from Emerson to Thompson	A
2	230/242	Right of NB 52 from Southview to Marie	A
3	250	Right of WB 94 from Johnson Prkwy to Earl	B
4	249	Right of EB 94 from Sterling to Century	D
5	117	Right of WB 94 from White Bear Ave. to Birmingham St.	C
6	118	Right of EB 94 from Ruth St to McKnight Rd.	D
7	114	Right of WB 94 from NB Ramp of US 61 to Johnson Prkwy	B
8	112	Right of WB 94 at Johnson Prkwy	B
9	70	Right of SB 694 from TH 5 to Stillwater	E
10	71	Right of NB 694 from Stillwater to TH 5	E

Attachments A , B, C, D and E are aerial photos showing the locations.

H) A 4th paragraph of Section S-14 (Maintenance of Traffic and Traffic Control) of the Special Provisions is added to read:

Traffic Control pay items 'EACH' shall refer to each working day per wall location.

I) Section S-33.1 of the Special Provisions is hereby deleted, and the following is substituted therefore:

S-33.1 Construction operations shall be started on August 5, 2013 or within eight (8) Calendar Days after the date of Notice of Contract Approval or as indicated in the first Task Order, whichever is later. The anticipated date of the first Task Order is August 5, 2013. Construction operations shall not commence prior to Contract Approval. In addition, no Task Order construction operations shall commence prior to the Task Order being approved and authorized.

J) Section S-33.3 of the Special Provisions is hereby deleted, and the following is substituted therefore:

S-33.3 Working days will be assigned on Task Orders based on the following table. Work included on a Task Order, but not listed below will not be afforded time individually, but have been accounted for in the items listed below. The Engineer will negotiate time for any negotiated extra work, on the critical path, on each task order.

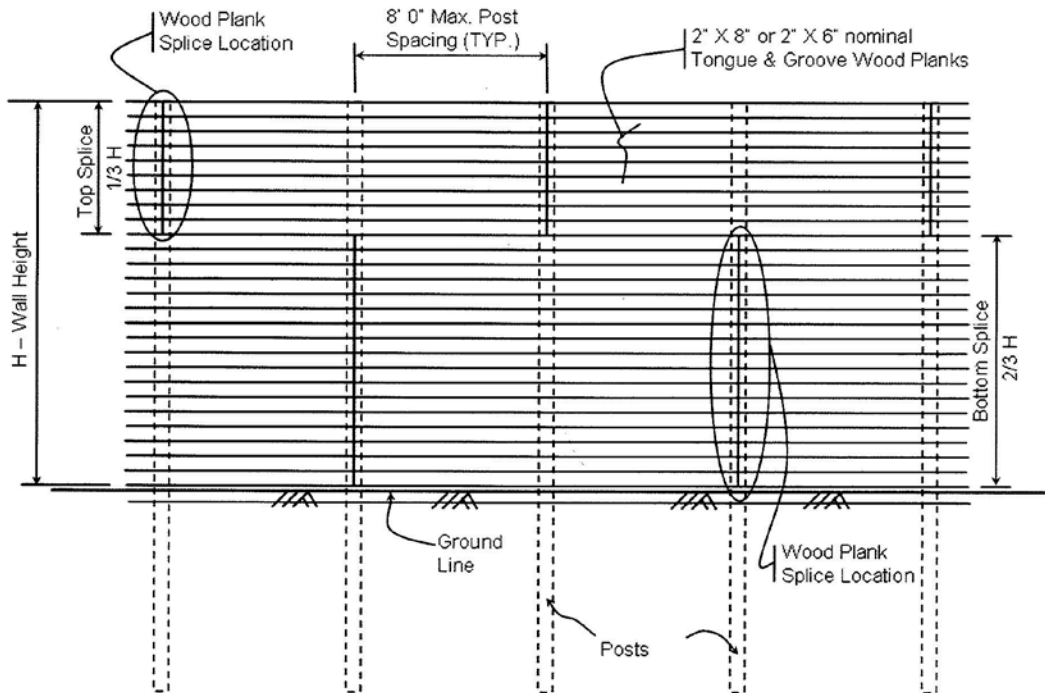
Item Number	Description	Time
2104.503	REMOVE WOOD NOISE WALL	750 SQ FT/Working Day
2422.618	WOOD NOISE BARRIER	750 SQ FT/Working Day
2012.618	WOOD NOISE BARRIER SPECIAL	500 SQ FT/Working Day

Work needed under Item 2104.503 (REMOVE WOOD NOISE WALL) shall occur concurrently with Items 2422.618 (Wood Noise Barrier) and 2012.618 (Wood Noise Barrier Special).

Working Day charges for 2422.618 (Wood Noise Barrier) and 2012.618 (Wood Noise Barrier Special) will begin the start date of the Task Order.

K) The following is added to Section S-43.11 of the Special Provisions:

(I) At the Contractor's option, in lieu of alternating plank splices as shown on Mn/DOT Standard Plan Sheet 5-297.661 (2 of 2) – Front Elevation, the following pattern may be used:



The top splice dimension shall be 1/3 of the wall height (H/3) as measured from the top of the wall. The bottom splice dimension shall be 2/3 of the wall height (2/3 of H) as measured from the bottom of the wall. In no case shall more than 2/3 of the boards be spliced at any single post location.

L) Paragraph (B) of Section S-43.14 of the Special Provisions is hereby changed to read:

(B) Payment will be made according to the following schedule:

<u>Item</u>	<u>Description</u>	<u>Units</u>
2422.618	Wood Noise Barrier *	Square Foot
2012.618	Wood Noise Barrier Special **	Square Foot

* Existing in-place wall panel between posts that is ten (10) feet in height (H) or less, measured vertically between top of the in-place bottom board and top of wall, will be compensated using Item 2422.618 (Wood Noise Barrier).


** Existing in-place wall panel between posts that is greater than ten (10) feet in height (H), measured vertically between top of the in-place bottom board and top of wall, will be compensated using Item 2012.218 (Wood noise Barrier Special)

Payment shall be considered payment in full for all other costs incidental thereto.

Bidders shall acknowledge the receipt of this addendum according to the provisions of MnDOT 1210.

Sincerely,



 Christopher Roy, P.E.
Director
Office of Project Management and Technical Support

Attachments:
A thru E

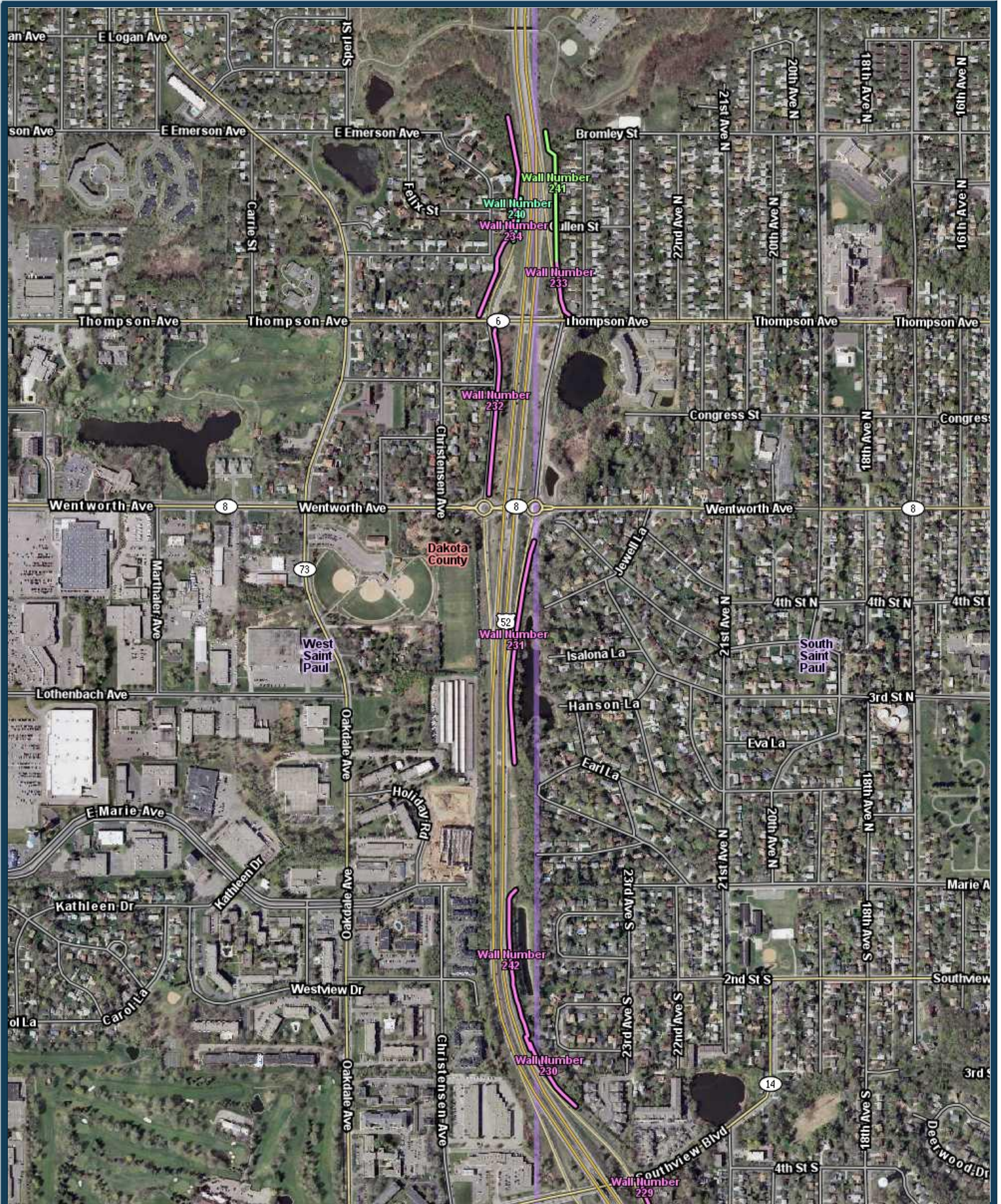
SP 8825-466 Attachment A

Spring 2013



MINNESOTA DEPARTMENT OF TRANSPORTATION
Metropolitan District

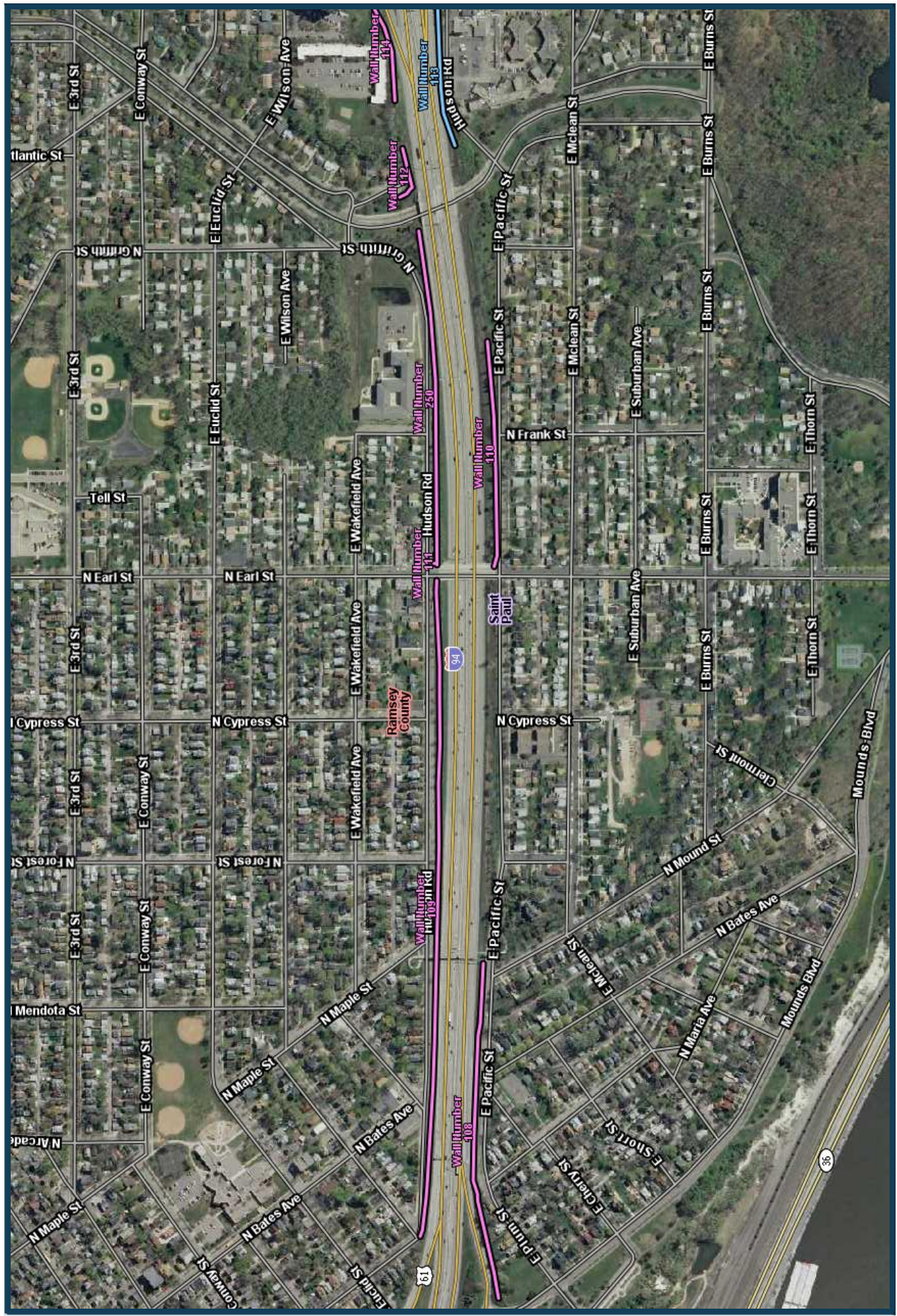
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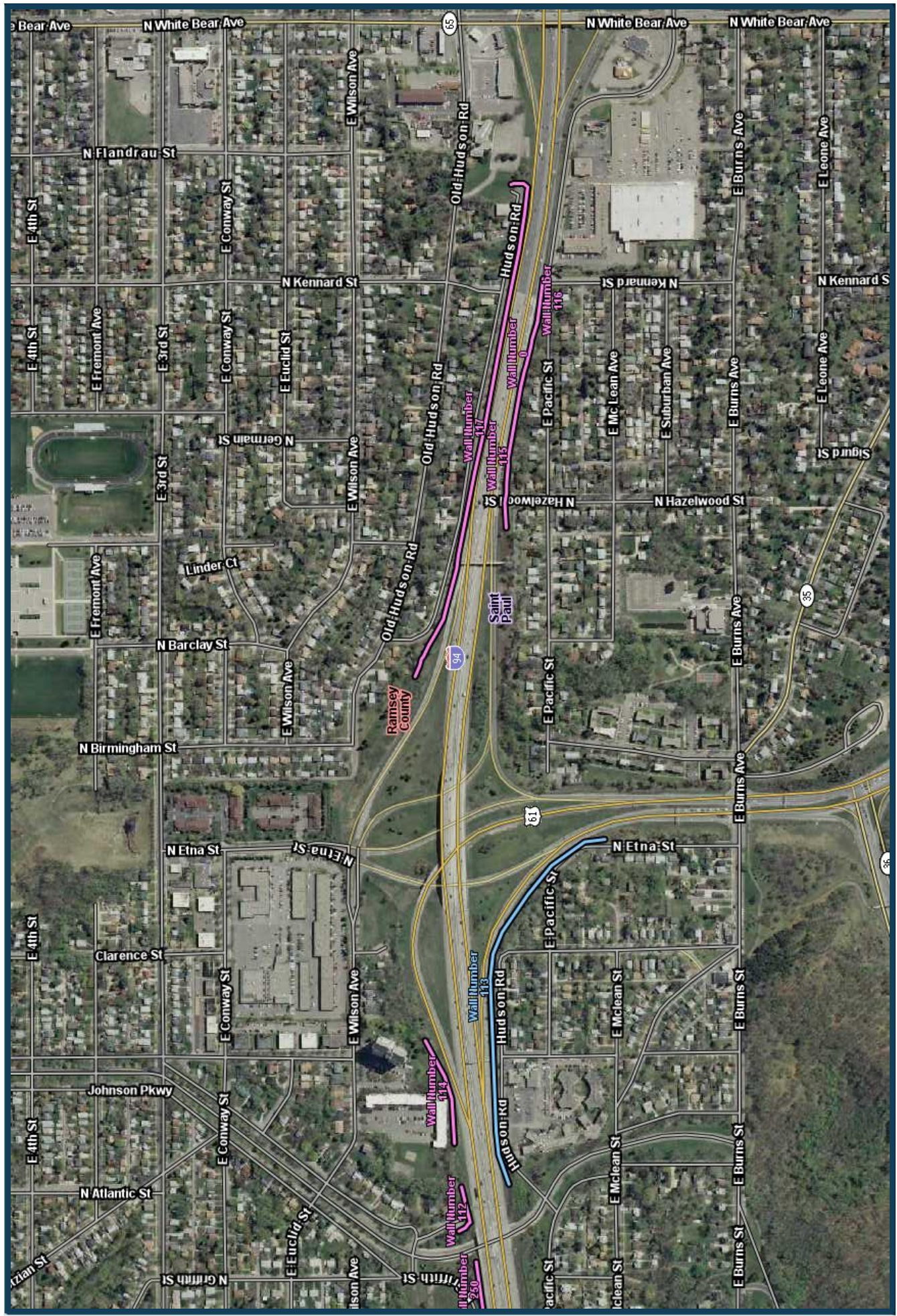
SP 8825-466 Attachment B



MINNESOTA DEPARTMENT OF TRANSPORTATION
Metropolitan District
Spring 2013

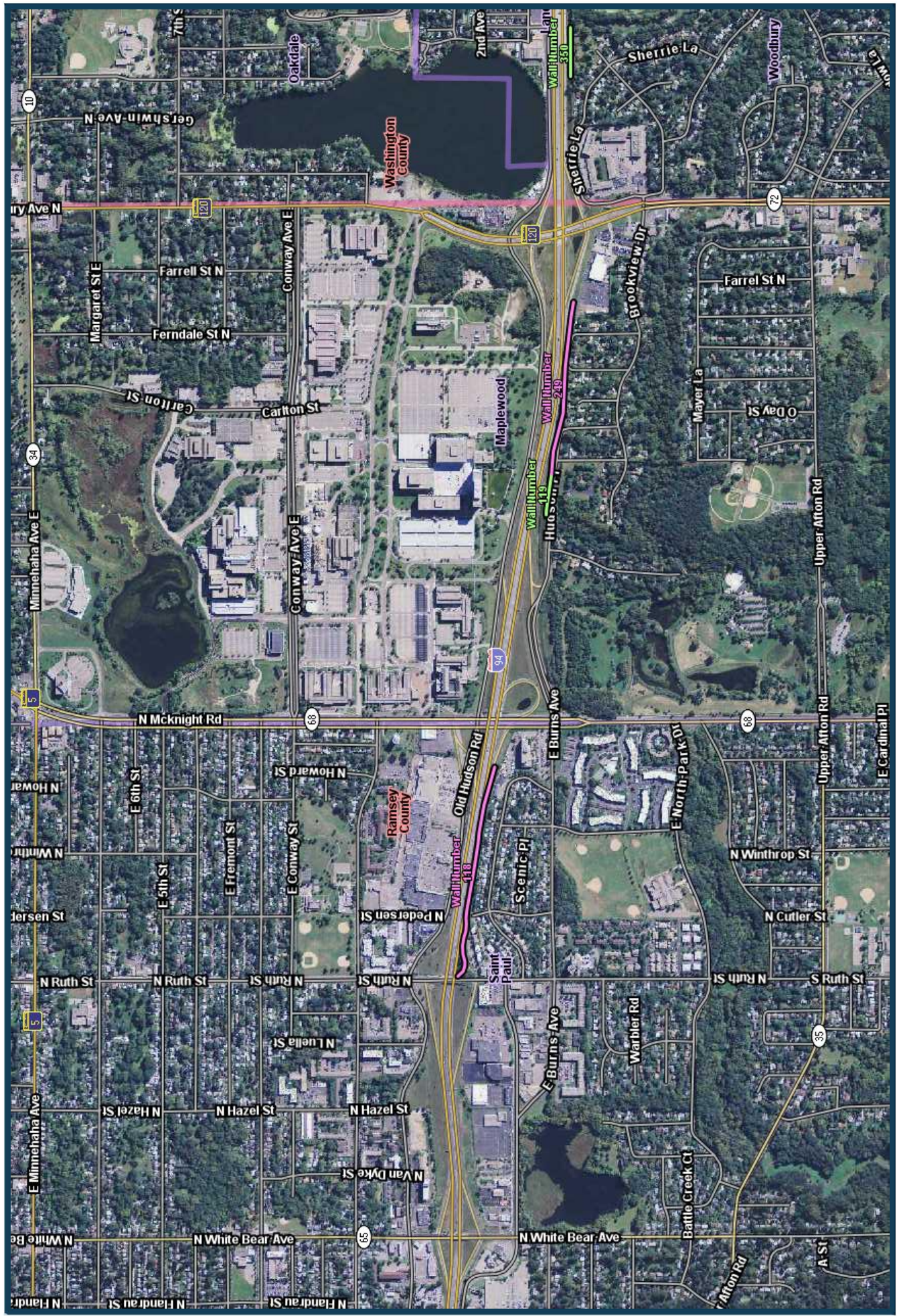


SP 8825-466 Attachment C





SP 8825-466 Attachment D

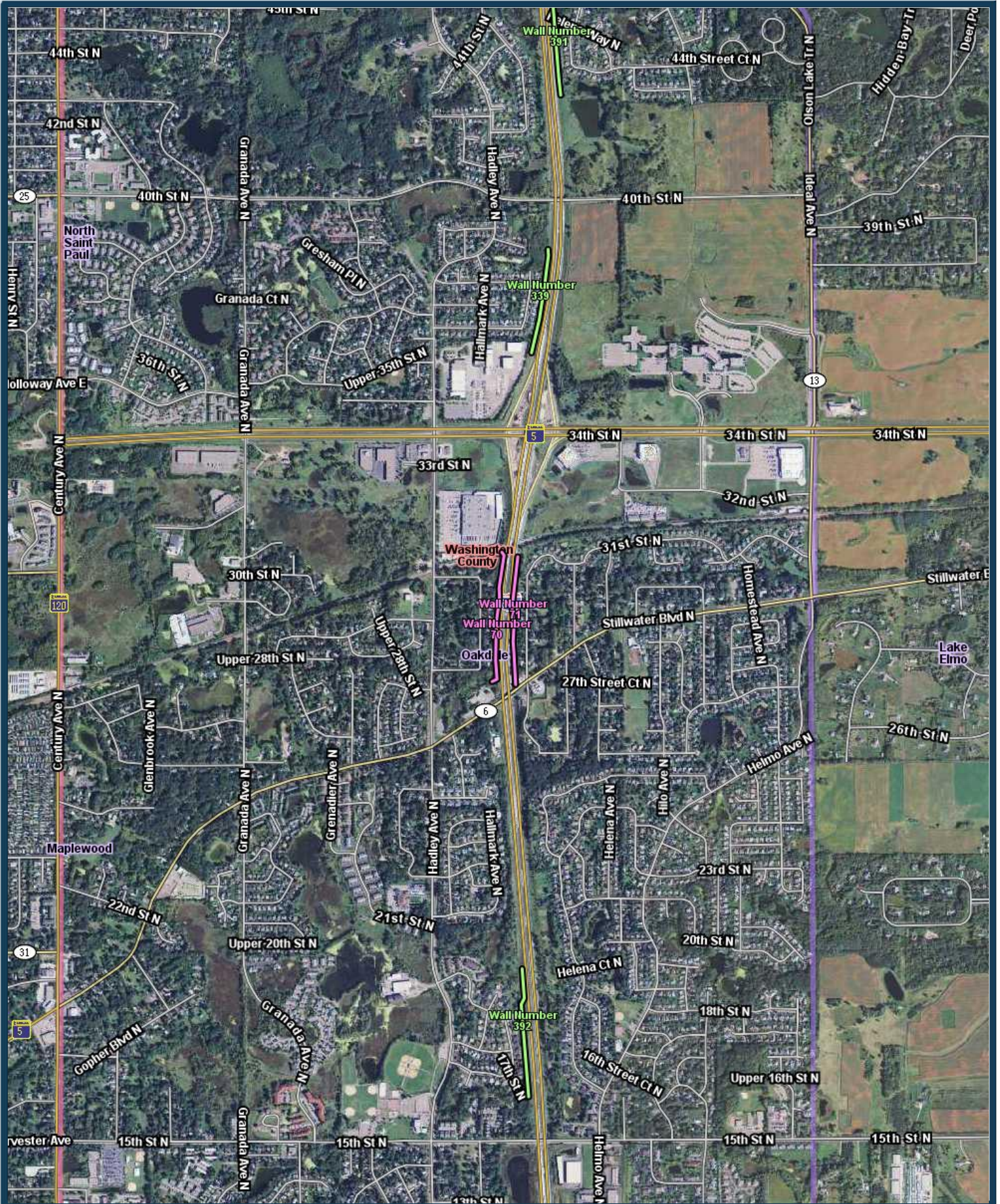


SP 8825-466 Attachment E



MINNESOTA DEPARTMENT OF TRANSPORTATION
Metropolitan District

Spring 2013





Minnesota Department of Transportation

Transportation Building
395 John Ireland Blvd, M.S. 692
St Paul, MN 55155

Pre Letting Services
Tel: 651-366-4615
Fax: 651-366-4680

May 29, 2013

TO: All Planholders of Record
SUBJECT: Prime SP 8825-466
State Project No. 8825-466
STATE FUNDS
Addendum No. 2
Date of Letting: MAY 17, 2013 JUNE 7, 2013

A) The Letting Date on the cover of the Proposal is hereby changed to JUNE 7, 2013. All Bidders planning on using electronic files to submit their bids are reminded to obtain files for the new letting date. Bidders using traditional bidding methods should follow their normal processes.

B) The following items are hereby added to the Bid Schedule. Bidders shall enter unit prices and extensions thereof in the appropriate locations for these lines. The extensions shall be included in the Grand Total of the Proposal. Failure to enter unit prices shall constitute an incomplete proposal, and shall be cause for rejection thereof.

Table with 5 columns: Line Number, Item Number, Item Description, Units, Quantity. Rows include Salvage Glue Laminated Rub Rail, Clearing, Grubbing, and Install Glue Laminated Rub Rail.

B) The first paragraph of Section S-11.2 (CONTRACT DESCRIPTION) of the Special Provisions is hereby changed to read:

The Contract scope is removing any plywood, removing in place noise wall wood planking except for the bottom board, furnishing and installing new treated wood planking on the existing posts, and salvage and re-installing rub rail at locations where removed. Each Task Order shall establish if Glue Laminated Rub Rail is included.

Vegetation in the area of the noise walls is to be left in place. Only vegetation within five feet of the noise wall will be allowed to be removed that prohibits replacement of noise wall planking including branches that are leaning on the noise walls. Removal of shrubs and removal of trees less than four (4) inch diameter is incidental to the contract. Prior to starting work on Task Orders, MnDOT forces will remove trees equal to or greater than four (4) inch diameter within five (5) feet of the highway side of the noise walls. In the event that MnDOT forces are not available, a Task Order may include a pay item for clearing and/or grubbing on the highway side of the wall. MnDOT personnel shall work with the Contractor to determine the extent of removals prior to Task Order agreement.

B) The fourth paragraph of Section S-11.2 (CONTRACT DESCRIPTION) of the Special Provisions is hereby changed to read:

Task Orders under this Contract generally consist of removing any plywood, removing in place noise wall wood planking except for the bottom board, furnishing and installing new treated wood planking on the existing posts, and installing salvaged rub rail at locations where removed. Additional major responsibilities to the Contractor are quality and safety.

C) The second sentence of the first paragraph of Section S-11.3 (ESTIMATED COST AND MAXIMUM TIME ALLOWED) of the Special Provisions is hereby changed to add:

Each individual task order will be at least 1,000 lineal feet and typically one (1) wall; the 1,000 lineal feet shall be sections of the same wall segment or within the same highway corridor. An average height of wall of eight (8) feet would indicate that a task order will be at least 8,000 square feet.

D) The table in Section S-11.7 (TASK ORDER ITEM LIST (TOIL)) of the Special Provisions is hereby changed to read:

Item Number	Description	Units
2012.602	TRAFFIC CONTROL TYPE 1	EACH
2012.602	TRAFFIC CONTROL TYPE 2	EACH
2012.602	TRAFFIC CONTROL TYPE 4	EACH
2101.501	CLEARING	ACRE
2101.506	GRUBBING	ACRE
2104.503	REMOVE WOOD NOISE WALL	SQ FT
2012.603	SALVAGE GLUE LAMINATED RUB RAIL	LN FT
2422.618	WOOD NOISE BARRIER	SQ FT
2012.618	WOOD NOISE BARRIER SPECIAL	SQ FT
2422.603	INSTALL GLUE LAMINATED RUB RAIL	LN FT

E) The following is added to Division S of the Special Provisions:

S-55 (2101) CLEARING AND GRUBBING

Clearing and grubbing operations shall be performed in accordance with the provisions of MnDOT 2101 and the following:

S-55.1 The first paragraph of MnDOT 2101.3D Disposal Limitations, is revised to read as follows:

The Contractor shall dispose of trees, brush, stumps, roots, and other debris or byproducts by chipping, marketing, or burning. The Contractor:

S-55.2 MnDOT 2101.3D (4) under Disposal Limitations, is revised to read as follows:

(4) Shall conduct burning only after the disposal options are deemed impractical, and in accordance with 2104.3, Minnesota Rules Chapter 7009 and any applicable local ordinances. At no time shall waste tires, rubble, or plastics or similar materials be used to ignite the wood resources.

S-55.3 MnDOT 2101.3D(5) under Disposal Limitations, is revised to read as follows:

(5) Shall not bury trees, brush, stumps, roots, and other debris or by-products within the State Right of Way.

- S-55.4 MnDOT 2101.3D1(a) under Marketable Trees, is revised to read as follows:
- (a) Shall not burn or waste marketable trees without having written proof from three potential wood-using industries or individuals that the wood is not wanted. This requirement only applies when the volume of marketable trees on the Project exceeds 75 m³ (100 cubic yards or 20 cords or 10,000 board feet).
- S-55.5 MnDOT 2101.3D2c(3) under Disposal Deadlines and Locations, is revised to read as follows:
- (3) Within the Right of Way by burning or chipping, when allowed.
- S-55.6 The first paragraph of MnDOT 2101.3D3 Pine, is revised to read as follows:
- The Contractor shall dispose of all non-marketable pine trees, brush, stumps, roots, and debris by chipping, debarking, burning, or covering with an air tight tarp within 20 calendar days of being cleared during the growing season.
- S-55.7 MnDOT 2101.3D6 Burying, is hereby deleted in its entirety.
- S-55.8 The first paragraph of MnDOT 2101.4A Qualifying Trees and Stumps, is revised to read as follows:
- The Engineer will only measure trees for payment that have a diameter of more than 4 inches at a point 24 inches above the ground surface.
- The Engineer will only measure trees for payment that have a diameter of more than 4 inches at a point 24 inches above the ground surface. The Engineer will only measure stumps for payment that have a diameter of more than 4 inches at:
- (a) A point 4 feet above the ground surface when the tree was cleared under the same Contract, or
- (b) The point of cutoff when the tree was not cleared under the same Contract.
- No measurement will be made for the removal and disposal of brush nor of stumps having a diameter of 4 inches) or less at the point of cutoff.
- S-55.9 The first paragraph of MnDOT 2101.4B Area Basis, is revised to read as follows:
- When the hectare is the unit, quantities will be determined by measuring (to the nearest 0.02 hectare (0.05 acre)) all areas cleared and all areas grubbed, staked by the Engineer. All measurements will be made horizontally to points zero (0) feet outside the trunks of qualifying trees or stumps on the perimeter of the area being measured. Separate areas smaller than 0.02 hectare (0.05 acre) will be considered to be 0.02 hectare (0.05 acre).
- S-55.10 The first paragraph of MnDOT 2101.5 Basis of Payment, is revised to read as follows:
- Payment for the accepted quantities of clearing and grubbing at the Contract prices per unit of measure will be full compensation for all removal and disposal costs, including the costs of securing outside disposal sites as needed and of carrying out the specified treatment in disposing of elm, oak wilt infected red oaks, pine, and marketable trees.
- S-55.11 The Contractor shall remove only those trees necessary to be removed to construct this Project. All other trees shall be protected from damage during construction.

F) The following is added to Division S of the Special Provisions:

S-56 (2012) SALVAGE GLUE LAMINATED RUB RAIL

This work shall consist of salvaging and storing glue laminated rub rail in accordance with the applicable MnDOT Standard Specifications, as directed by the Engineer, and the following:

S-56.1 The salvaged glue laminated rub rail which will be re-used, should be stored in a manner to prevent damage. Any damage to the salvaged materials resulting from the removing and salvaging operation shall be repaired and replaced at the Contractor's expense.

S-56.2 The Contractor shall inform the Engineer or his representative of any damaged in place rub rail prior to salvaging so a deduction will not be made.

S-56.3 Measurement will be made by the linear foot of rub rail. Payment will be made under Item 2012.603 (Salvage Glue Laminated Rub Rail) at the contract bid price per lineal foot which shall be Payment shall be considered compensation in full for all other costs incidental thereto.

Contractor shall verify quantities prior to the start of the Task Order.

G) The following is added to Division S of the Special Provisions:

S-57 (2422) INSTALL GLUE LAMINATED RUB RAIL

This work shall consist of installing salvaged glue laminated rub rails in accordance with the applicable MnDOT Standard Specifications, as directed by the Engineer, and the following:

S-57.1 Glue Laminated Rub Rail located on the noise walls to be replanked shall be re installed at the same location that it was removed.

S-57.2 Measurement will be made by the length of Rub Rail installed. Payment will be made under Item 2422.603 (Install Glue Laminated Rub Rail) at the Contract bid price per linear foot, which shall be compensation in full for all costs relative to installing the salvaged Rub Rail including providing new hardware and required connections.

Contractor shall verify quantities prior to the start of the Task Order.

H) Paragraph (B) of Section S-43.14 of the Special Provisions as modified in Section L) of Addendum No. 1 is hereby changed to read:

(B) Payment will be made according to the following schedule:

<u>Item</u>	<u>Description</u>	<u>Units</u>
2422.603	Install Glue Laminated Rub Rail	Linear Foot
2422.618	Wood Noise Barrier *	Square Foot
2012.618	Wood Noise Barrier Special **	Square Foot

* Existing in-place wall panel between posts that is ten (10) feet in height (H) or less, measured vertically between top of the in-place bottom board and top of wall, will be compensated using Item 2422.618 (Wood Noise Barrier).

** Existing in-place wall panel between posts that is greater than ten (10) feet in height (H), measured vertically between top of the in-place bottom board and top of wall, will be compensated using Item 2012.218 (Wood noise Barrier Special)

Payment shall be considered payment in full for all other costs incidental thereto.

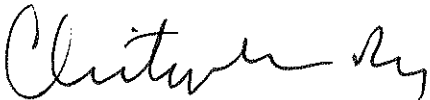
I) Construction Note 4 on Plan Sheet No. 2 shall be changed to read as follows:

All vegetation in the area of the noise walls is to be left in place. Only vegetation that prohibits replacement of noise wall planking shall be removed. MnDOT forces shall remove trees equal to or greater than 4" diameter within five (5) feet of the highway side of the walls prior to the start of a Task Order.

J) Notes 6 and 7 under the Statement of Estimated Quantities on Plan Sheet No. 2 shall be deleted.

Bidders shall acknowledge the receipt of this addendum according to the provisions of MnDOT 1210.

Sincerely,

A handwritten signature in cursive script, appearing to read "Christopher Roy".

Christopher Roy, P.E.
Director
Office of Project Management and Technical Support

NOTICE TO BIDDERS

SUSPENSIONS/DEBARMENTS

April 1, 2013
Page 1 of 2

DEPARTMENT OF TRANSPORTATION

NOTICE OF DEBARMENT

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective March 25, 2011 until March 25, 2014:

- Philip Joseph Franklin, Leesburg, VA
- Franklin Drywall, Inc. and its affiliates, Little Canada, MN
- Master Drywall, Inc. and its affiliates, Little Canada, MN

NOTICE OF SUSPENSION

NOTICE IS HEREBY GIVEN that the Department of Transportation (“MnDOT”) has ordered that the following vendors be suspended for a period of sixty (60) days, effective April 1, 2013 until May 31, 2013:

- Marlon Louis Danner and his affiliates, South St. Paul, MN
- Danner, Inc. and its affiliates, South St. Paul, MN
- Bull Dog Leasing, Inc. and its affiliates, Inver Grove Heights, MN
- Danner Family Limited Partnership and its affiliates, South St. Paul, MN
- Ell-Z Trucking, Inc. and its affiliates, South St. Paul, MN
- Danner Environmental, Inc. and its affiliates, South St. Paul, MN

NOTICE IS HEREBY GIVEN that the Department of Transportation (“MnDOT”) has ordered that the following vendors be suspended for a period of sixty (60) days, effective March 13, 2013 until May 12, 2013:

- Gary Francis Bauerly and his affiliates, Rice, MN
- Gary Bauerly, LLC and its affiliates, Rice, MN
- Watab Hauling Co. and its affiliates, Rice, MN

Minnesota Statute section 161.315 prohibits the Commissioner, counties, towns, or home rule or statutory cities from awarding or approving the award of a contract for goods or services to a person who is suspended or debarred, including:

- 1) any contract under which a debarred or suspended person will serve as a subcontractor or material supplier,
- 2) any business or affiliate which the debarred or suspended person exercises substantial influence or control, and
- 3) any business or entity, which is sold or transferred by a debarred person to a relative or any other party over whose actions the debarred person exercises substantial influence or control, remains ineligible during the duration of the seller’s or transfer’s debarment.

NOTICE TO BIDDERS

SUSPENSIONS/DEBARMENTS

April 1, 2013

Page 2 of 2

DEPARTMENT OF ADMINISTRATION

As of the date of this notice and in accordance with Minnesota Rules 1230.1150, the Minnesota Department of Administration has debarred and disqualified the following persons and businesses from entering into or receiving a State of Minnesota contract:

NAME	DATE OF DEBARMENT
Best Used Trucks of Minnesota, Inc. 635 Marin Ave. Crookston, MN 56716	Nov. 20, 2012 through Nov. 20, 2015 (eligible for reinstatement on Nov. 20, 2016)
Bull Dog Leasing, Inc. 7854 Danner Court Inver Grove Heights, MN 55076	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Danner Family Ltd. Ptnship. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Danner, Inc. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Ell-Z Trucking, Inc. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Franklin Drywall, Inc. 43279 Fieldsview Crt. Leesburg, VA 20176	March 25, 2011 through March 25, 2014 (eligible for reinstatement on March 25, 2015)
Master Drywall, Inc. 43279 Fieldsview Crt. Leesburg, VA 20176	March 25, 2011 through March 25, 2014 (eligible for reinstatement on March 25, 2015)
Watab Hauling Co. Gary Francis Bauerly 9695 Deerwood Rd. NE Rice, MN 56367	Jan. 14, 2013 through Jan. 14, 2016 (eligible for reinstatement on Jan. 14, 2017)

Minnesota Administrative Rule part 1230.1150, subpart 6 requires the Materials Management Division to maintain a master list of all suspensions and debarments. The master list must retain all information concerning suspensions and debarments as a public record for at least three (3) years following the end of a suspension or debarment. Refer to the following website for the master list: <http://www.mmd.admin.state.mn.us/debarredreport.asp>.

If the project is financed in whole or in part with federal funds, refer to the following website for vendors debarred by federal government agencies: <http://sam.gov>.

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S-26	(1706) EMPLOYEE HEALTH AND WELFARE.....	25-S
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- Attached: Attachment "2571 – Plant Installation and Establishment"
Attachment "Schedule of Materials Control"
Attachment "Targeted Group Business (TGB) and Veteran-Owned Small Business Special Provisions"
Equal Opportunity Employee Provisions
Bid Bond Form

PROJECT PLANS

The Plans for this Project, consisting of the sheets tabulated below, were approved by the State Design Engineer.

PROJECT NO.	TYPE OF WORK	TOTAL SHEETS	SHEET NO.	DATE OF APPROVAL
8825-466	Noise Wall	8	1-8	N/A

New or revised sheets were approved as listed below:

PROJECT NO.	SHEET NO.	DATE OF APPROVAL

STATE FUNDED CONSTRUCTION CONTRACTS
SPECIAL PROVISIONS DIVISION A - LABOR
April 7, 2006

I. PREAMBLE

It is in the public interest that public buildings and other public works projects be constructed and maintained by the best means and the highest quality of labor reasonably available and that persons working on public works projects be compensated according to the real value of the services they perform.¹

Therefore, the department shall administer this contract pursuant to the **State of Minnesota Statutes and Rules, MN/DOT's Standard Specifications for Construction, MN/DOT's Contract Administration Manual, MN/DOT's State Aid Manual** and applicable federal labor regulations.

II. DEFINITIONS²

- A. **Contract**: The written agreement between the contracting authority and the prime contractor setting forth their obligations, including, but not limited to, the performance of the work, the furnishing of labor and materials, the basis of payment, and other requirements contained in the contract documents.
- B. **Contracting Authority**: The political subdivision, governmental body, board, department, commission, or officer making the award and execution of contract as the party of the first part.
- C. **Contractor**: The term "contractor" in these provisions shall include the prime contractor, subcontractor, agent, or other person doing or contracting to do all or part of the work under this contract.³
- D. **Department**: The Department of Transportation of the State of Minnesota, or the political subdivision, governmental body, board, commission, office, department, division, or agency constituted for administration of the contract work within its jurisdiction.
- E. **First Tier Subcontractor**: An individual, firm, corporation, or other entity to which the prime contractor sublets part of the contract.
- F. **Independent Truck Owner/Operator (ITO)**: An individual, partnership, or principal stockholder of a corporation who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity that provides construction services to a public works project.⁴
- G. **Laborer or Mechanic**: A worker in a construction industry labor class identified in or pursuant to Minnesota Rules 5200.1100, Master Job Classifications.⁵
- H. **Plan**: The plan, profiles, typical cross-sections, and supplemental drawings that show the locations, character, dimensions, and details of the work to be done.
- I. **Prime Contractor**: The individual, firm, corporation, or other entity contracting for and undertaking prosecution of the prescribed work; the party of the second part to the contract, acting directly or through a duly authorized representative.
- J. **Project**: The specific section of the highway, the location, or the type of work together with all appurtenances and construction to be performed under the contract.

¹ Minnesota Statute 177.41

² MN/DOT Standard Specifications for Construction, Section 1103

³ Minnesota Statute 177.44, Subdivision 1

⁴ Minnesota Rules 5200.1106, Subpart 7(A)

⁵ Minnesota Rules 5200.1106, Subpart 5(A)

- K. **Second Tier Subcontractor**: An individual, firm, corporation, or other entity to which a first tier subcontractor sublets part of the contract.
- L. **Special Provisions**: Additions and revisions to the standard and supplemental specifications covering conditions peculiar to an individual project.
- M. **Specifications**: A general term applied to all directions, provisions, and requirements pertaining to performance of the work.
- N. **Subcontractor**: An individual, firm, corporation, or other entity to which the prime contractor or subcontractor sublets part of the contract.
- O. **Substantially In Place**: Mineral aggregate is deposited on the project site directly or through spreaders where it can be spread from or compacted at the location where it was deposited.⁶
- P. **Trucking Broker**: An individual or business entity, the activities of which include, but are not limited to: contracting to provide trucking services in the construction industry to users of such services, contracting to obtain such services from providers of trucking services, dispatching the providers of the services to do work as required by the users of the services, receiving payment from the users in consideration of the trucking services provided and making payment to the providers for the services.⁷
- Q. **Trucking Firm/Multiple Truck Owner (MTO)**: Any business entity that owns more than one vehicle and hires the vehicles out for services to brokers or contractors on public works projects.⁸
- R. **Work**: The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all the duties and obligations imposed by the contract upon the contractor. Also used to indicate the construction required or completed by the contractor.

III. SCOPE – SPECIAL PROVISIONS DIVISION A & CONTRACT

- A. These provisions shall apply to this contract, which is funded in whole or part with state funds.⁹
- B. These provisions shall apply to the prime contractor and all subcontractors contracting to do all or part of the work under this contract.¹⁰
- C. The provisions established in this document do not necessarily represent all federal, state, and local laws, ordinances, rules and regulations. It is the responsibility of the prime contractor to inform itself and all subcontractors about other regulations that may be applicable to this contract.
- D. The prime contractor is responsible to ensure that each subcontractor performing work under this contract receives copies of all required contract provisions. These provisions shall be incorporated into written subcontracts and must be displayed on the poster board.¹¹
- E. The department shall administer this contract in accordance with all applicable state statutes and rules,¹² along with the plans, specifications and provisions, which are incorporated into and found elsewhere in this contract.
- F. An unpublished decision from the Minnesota Court of Appeals affirms the authority of the Minnesota Commissioner of Transportation to enforce the Minnesota Prevailing Wage Law on a case-by-case basis.¹³

⁶ Minnesota Rules 5200.1106, Subpart 5(C)

⁷ Minnesota Rules 5200.1106, Subpart 7(C)

⁸ Minnesota Rules 5200.1106, Subpart 7(B)

⁹ Minnesota Statute 177.41

¹⁰ Minnesota Statute 177.44, Subdivision 1

¹¹ Minnesota Statute 177.44, Subdivision 5

¹² Minnesota Rules 8820.3000, Subpart 2

¹³ Minnesota Court of Appeals Case Number: C6-97-1582

G. For additional information refer to: www.dot.state.mn.us/const/labor/.

IV. PAYROLLS AND STATEMENTS

- A. All contractors shall submit a payroll statement to the department.¹⁴ The statement shall be submitted based on the contractor's payment schedule. If a contractor pays its employees weekly, a payroll statement shall be submitted weekly. If a contractor pays its employees biweekly, a payroll statement shall be submitted biweekly.¹⁵ All contractors shall pay its employees at least once every 15 days on a date designated in advance by the employer.¹⁶ Each statement submitted shall include all employees that performed work under this contract and provide at a minimum the following information:¹⁷
1. Contractor's name, address, and telephone number.
 2. State project number.
 3. Payroll report number.
 4. Project location.
 5. Workweek ending date.
 6. Name, social security number, and home address for each employee.
 7. Labor classification(s) and/or three-digit code for each employee.
 8. Hourly straight time and overtime wage rates paid to each employee.
 9. Daily and weekly hours worked in each labor classification, including overtime hours for each employee.
 10. Authorized legal deductions for each employee.
 11. Project gross amount, weekly gross amount and net wages paid to each employee.
- B. Payroll records may be submitted in any form provided it includes all the information contained in **Subpart A (1 - 11)** of this section. However, contractors needing a payroll form may utilize the "front side" of the **U.S. Department of Labor's, WH-347 - Payroll Form**. This form is available by visiting the Labor Compliance website.¹⁸
- C. All payroll records must be accompanied with a completed and signed **MN/DOT, 21658 - Statement of Compliance Form**.¹⁹
- D. The prime contractor is responsible for assuring that its payroll records and those of all subcontractors include all employees that performed work under this contract and accurately reflect the hours worked, regular and overtime rates of pay and classification of work performed.²⁰
- E. The prime contractor is responsible to maintain all certified payroll records, including those of all subcontractors, throughout the course of a construction project and retain all records for a period of three years after the final contract voucher has been issued.²¹
- F. At the end of each pay period, each contractor shall provide every employee, in writing, an accurate, detailed earnings statement.²²

¹⁴ Minnesota Statute 177.44, Subdivision 7

¹⁵ Mn/DOT Contract Administration Manual, Section .320

¹⁶ Minnesota Statute 181.10

¹⁷ Minnesota Rules 5200.1106, Subpart 10 and Minnesota Statute 177.30

¹⁸ www.dot.state.mn.us/const/labor/

¹⁹ Minnesota Rules 5200.1106, Subpart 10

²⁰ Minnesota Statute 177.30(1)(2)(3)(4)

²¹ Minnesota Statute 177.30(4)

²² Minnesota Statute 181.032

- G. Upon request from the Minnesota Department of Labor and Industry (MN/DLI) or the Department, the prime contractor shall promptly furnish copies of payroll records for its workers and those of all subcontractors, along with other records, deemed appropriate by the requesting agency to determine compliance with these contract provisions.²³
- H. At the department's discretion, the project engineer may administer the submission of payroll records according to MN/DOT's Payroll Maintenance Program. The guidelines for the implementation and administration of this program are outlined in the **MN/DOT Contract Administration Manual, Section A(4)(d)**.
- I. If, after written notice, the prime contractor fails to submit its payroll reports and certification forms and those of any subcontractor, the department may implement the actions prescribed in section **XVI (NON-COMPLIANCE AND ENFORCEMENT)**.

V. WAGE RATES

- A. The prime contractor is responsible to ensure that its workers and those of all subcontractors are compensated according to the MN/DLI state prevailing wage determination(s) incorporated into and found elsewhere in this contract. All contractors shall pay each worker the required minimum total hourly wage rate for all hours worked on the project and for the appropriate classification of labor.
 - 1. State highway and heavy wage determinations are issued for ten separate regions throughout the state of Minnesota. If the contract work is located in more than one region, the applicable wage decision for each region shall be incorporated into and found elsewhere in this contract. If this contract contains multiple state highway and heavy wage determinations, there shall be only one standard of hours of labor and wage rates.²⁴
 - 2. State commercial wage determinations are issued for each county throughout the state of Minnesota. If the contract work is located in more than one county, the applicable wage determination for each county shall be incorporated into and found elsewhere in this contract. If this contract contains multiple state commercial wage determinations, there shall be only one standard of hours of labor and wage rates.²⁵
- B. Wage rates listed in the state wage determination(s) contain two components: the hourly basic rate and the fringe rate; together they equal the total prevailing wage rate. A contractor shall compensate a worker at a minimum, a combination of cash and fringe benefits equaling the total prevailing wage rate.²⁶
- C. The applicable certified wage decision(s) incorporated into and found elsewhere in this contract remain in effect for the life of this contract. The wage decision(s) do not necessarily represent the workforce that can be obtained at the rates certified by the MN/DLI. It is the responsibility of the prime contractor and any subcontractor to inform themselves about local labor conditions and prospective changes or adjustments to the wage rates. No increase in the contract price shall be allowed or authorized due to wage rates that exceed those incorporated into this contract.
- D. A contractor shall not reduce a worker's private, regular rate of pay when the wage rate certified by the MN/DLI is less than the worker's normal hourly wage.²⁷
- E. From the time a worker is required to report for duty at the project site until the worker is allowed to leave the site, no deductions shall be made from the worker's hours for any delays of less than twenty consecutive minutes.²⁸

²³ Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10

²⁴ Minnesota Statute 177.44, Subdivision 4

²⁵ Minnesota Statute 177.44, Subdivision 4

²⁶ Minnesota Statute 177.42, Subdivision 6

²⁷ Minnesota Statute 181.03, Subdivision 1(2)

²⁸ Minnesota Rules 5200.0120, Subpart 1

- F. In situations where a delay may exceed twenty consecutive minutes and the contractor requires a worker to remain on the premises or so close to the premises that the worker cannot use the time effectively for the worker's own purposes, the worker is considered "on-call"²⁹ and shall be compensated in accordance with **Subpart B** of this section, unless the worker is allowed or required to leave the project site.
- G. A contractor making payment to an employee, laborer, mechanic, worker, or truck owner-operator shall not accept a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid.³⁰
- H. Any employee who knowingly permits a contractor to pay less than the total prevailing wage or gives up any part of the compensation to which the employee is entitled may be subject to penalties.³¹

VI. BONA FIDE FRINGE BENEFITS

- A. A "funded" fringe benefit plan is one that allows the contractor to make irrevocable contributions on behalf of an employee to a financially responsible trustee, third person, fund, plan or program, without prior approval from the U.S. Department of Labor. Types of "funded" fringe benefits may include, but are not limited to: pension, health and life insurance.³²
- B. An "unfunded" fringe benefit plan or program is one that allows the contractor to furnish an in-house benefit on behalf of an employee. The cost to provide the benefit is funded from the contractor's general assets rather than funded by contributions made to a trustee, third person, fund, plan or program. Types of "unfunded" fringe benefits may include, but are not limited to: holiday plans, vacation plans and sick plans.³³
- C. Credit toward the total prevailing wage rate shall be determined for each individual employee and is allowed for bona fide fringe benefits that:³⁴
 - 1. include contributions irrevocably made by a contractor on behalf of an employee to a financially responsible trustee, third person, fund, plan, or program;
 - 2. are legally enforceable;
 - 3. have been communicated in writing to the employee; and
 - 4. are made available to the employee once he/she has met all eligibility requirements.
- D. No credit shall be allowed for benefits required by federal, state or local law, such as: worker's compensation, unemployment compensation, and social security contributions.³⁵
- E. Upon request from the Minnesota Department of Labor and Industry (MN/DLI) or the Department, the prime contractor shall promptly furnish copies of fringe benefit records for its workers and those of all subcontractors, along with other records, deemed appropriate by the requesting agency to determine compliance with these contract provisions.³⁶
- F. In addition to the requirements set forth in **Subpart C** of this section, it is the responsibility of the prime contractor and any subcontractor to inform themselves about other federal and state fringe benefit regulations that may be applicable to this contract.

²⁹ Minnesota Rules 5200.0120, Subpart 2

³⁰ Minnesota Rules 5200.1106, Subpart 6

³¹ Minnesota Statute 177.44, Subdivision 6

³² 29 CFR Parts 5.26 and 5.27

³³ 29 CFR Part 5.28

³⁴ 29 CFR Part 5.23

³⁵ 29 CFR Part 5.29(f)

³⁶ Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10

- G. Contractors shall submit a completed and signed **MN/DOT, 21658 - Statement of Compliance Form**, identifying any fringe contributions made on behalf of a worker.³⁷ The form must be submitted in accordance with section **IV (PAYROLLS AND STATEMENTS), Subparts A and C**.
- H. Pursuant with *Minnesota Statute 181.74, Subdivision 1*, a contractor that is obligated to deposit fringe benefit contributions on behalf of its employees into a financially responsible trustee, third person, fund, plan, or program and fails to make timely contributions may be guilty of a gross misdemeanor. A contractor found in violation of the above-mentioned statute shall compel the department to take such actions as prescribed in section **XVI, (NON-COMPLIANCE AND ENFORCEMENT)**.

VII. OVERTIME

- A. A contractor shall not permit or require a worker to work longer than the prevailing hours of labor unless the worker is paid for all hours in excess of the prevailing hours at a rate of at least 1-1/2 times the hourly basic hourly rate of pay.³⁸ The prevailing hours of labor is defined as not more than 8 hours per day or more than 40 hours per week.³⁹
- B. In addition to the requirements set forth in **Subpart A** of this section, it is the responsibility of the prime contractor and any subcontractor to inform themselves about other federal and state overtime regulations that may be applicable to this contract.

VIII. LABOR CLASSIFICATIONS

All contractors shall refer to the state wage determination(s) incorporated into and found elsewhere in this contract or the Master Job Classification List⁴⁰ to obtain an applicable job classification. If a contractor cannot determine an appropriate job classification, state law requires that the worker be assigned a job classification that is the "same or most similar".⁴¹ Contractors needing clarification shall contact MN/DLI or the MN/DOT Labor Compliance Unit at (651) 296-6503.

IX. INDEPENDENT CONTRACTORS, OWNERS, SUPERVISORS AND FOREMAN

- A. An independent contractor performing work as a laborer or mechanic is subject to the contract prevailing wage requirements⁴² for the classification of work performed and shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS)**. In order to ensure compliance, the department may examine the subcontract agreement to determine if the bid price submitted covers the applicable prevailing wage rate for the number of hours worked, along with other records, deemed appropriate by the department.⁴³
- B. Pursuant with state regulations, owners, supervisors and foreman performing work under the contract⁴⁴ shall be compensated in accordance with section **V (WAGE RATES)**. Furthermore, the prime contractor and any subcontractor shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS)**.

³⁷ Minnesota Rules 5200.1106, Subpart 10

³⁸ Minnesota Statute 177.44, Subdivision 1

³⁹ Minnesota Statute 177.42, Subdivision 4

⁴⁰ Minnesota Rules 5200.1100

⁴¹ Minnesota Statute 177.44, Subdivision 1

⁴² 29 CFR Part 5.2(o) and Minnesota Statute 177.41

⁴³ Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10

⁴⁴ Minnesota Statute 177.44, Subdivision 1

X. APPRENTICES, TRAINEES AND HELPERS

- A. An apprentice is not subject to the state wage decision(s) incorporated into and found elsewhere in this contract, provided the contractor can demonstrate compliance with **Subparts (1 - 4)** of this section.⁴⁵
1. The apprentice is performing the work of his/her trade.
 2. The apprentice is registered with the U.S. DOL Bureau of Apprenticeship and Training or MN/DLI Division of Voluntary Apprenticeship.
 3. The apprentice is compensated according to the rate specified in the program for the level of progress.
 4. The ratio of apprentices to journeyman workers on the project is not greater than the ratio permitted for the contractor's entire work force under the registered program.⁴⁶
- B. If a contractor fails to demonstrate compliance with the terms established in **Subpart A (1 - 4)** of this section, the contractor shall compensate the worker not less than the applicable total prevailing wage rate for the actual work performed.⁴⁷
- C. A trainee and a helper are not exempt under state law; the contractor shall assign the trainee or helper a job classification that is the "same or most similar"⁴⁸ and compensate the trainee or helper for the actual work performed regardless of the trainee's or helper's skill level.

XI. SUBCONTRACTING PART OF THIS CONTRACT⁴⁹

- A. If the prime contractor intends to sublet any portion of this contract, it shall complete and submit a **MN/DOT, TP-21834, Request To Sublet Form** to the project engineer 10 days prior to the first day of work for any subcontractor.
- B. The prime contractor shall not subcontract any portion of this contract without prior written consent from the project engineer.
- C. The prime contractor's organization shall perform work amounting to not less than 40 percent of the total original contract cost. However, contracts with Disadvantaged Business Enterprise (DBE) or Targeted Group Business (TGB) established goals, or both, the contractor's organization shall perform work amounting to not less than 30 percent of the total original contract cost.
- D. A first tier subcontractor shall not subcontract any portion of its work under this contract unless approved by the prime contractor and the project engineer. In addition, a first tier subcontractor may only subcontract up to 50% of its original subcontract.
- E. A second tier subcontractor shall not subcontract any portion of its work under this contract.
- F. Written consent to subcontract any portion of this contract does not relieve the prime contractor of liabilities and obligations under the contract and bonds.
- G. Contractors shall not subcontract with or purchase materials or services from a debarred or suspended person.⁵⁰

XII. POSTER BOARDS

- A. The prime contractor shall construct and display a poster board, which contains all required posters, is complete, accurate, legible and accessible to all workers from the first day of work

⁴⁵ Minnesota Rules 5200.1070

⁴⁶ MN/DOLI Division of Apprenticeship – April 6, 1995 Memorandum from Jerry Briggs, Director

⁴⁷ Minnesota Rules 5200.1070, Subpart 3

⁴⁸ Minnesota Statute 177.44, Subdivision 1

⁴⁹ MN/DOT Standard Specifications for Construction, Section 1801

⁵⁰ Minnesota Statute 161.315, Subdivision 3(3)

until the project is 100 percent complete.⁵¹ The prime contractor is not allowed to place a poster board at an off-site location.

- B. The prime contractor can obtain the required posters by contacting MN/DOT at (651) 366-3091. The prime contractor will need to furnish its name, mailing address, the type of posters (state-aid) and the quantity needed.
- C. Refer to the poster board section of the Labor Compliance website to obtain applicable contact information for each poster. The link to the website can be found in section **III (SCOPE – SPECIAL PROVISIONS DIVISION A & CONTRACT), Subpart G** of these provisions.

XIII. EMPLOYEE INTERVIEWS

At any time the prime contractor shall permit representatives from MN/DLI or the Department to interview its workers and those of any subcontractor during working hours on the project.⁵²

XIV. TRUCKING / OFF-SITE FACILITIES

- A. The prime contractor is responsible to ensure that its workers and those of all subcontractors, are compensated in accordance with the state wage determination(s) incorporated into and found elsewhere in this contract for the following work duties:
 1. The processing or manufacturing of material, including the hauling of material to and from a prime contractor's material operation that is not a separate commercial establishment.⁵³
 2. The processing or manufacturing of material, including the hauling of material to and from an off-site material operation that is not considered a commercial establishment.⁵⁴
 3. The hauling of any or all stockpiled or excavated materials on the project work site to other locations on the same project even if the truck leaves the work site at some point.⁵⁵
 4. The delivery of materials from a non-commercial establishment to the project and the return haul.⁵⁶
 5. The delivery of materials from another construction project site to the public works project and the return haul, either empty or loaded. Construction projects are not considered commercial establishments.⁵⁷
 6. The hauling required to remove any materials from the project to a location off the project site and the return haul, either empty or loaded from other than a commercial establishment.⁵⁸
 7. The delivery of mineral aggregate materials from a commercial establishment, which is deposited "substantially in place" and the return haul, either empty or loaded.⁵⁹
- B. The work duties prescribed in **Subpart A (1 - 7)** of this section do not represent all possible hauling activities and/or other work duties that may be performed under this contract. It is the responsibility of the prime contractor to inform itself and all subcontractors about other applicable job duties that may be subject to the contract labor provisions. Refer to the Labor Compliance website for additional information regarding trucking regulations.

⁵¹ Minnesota Statute 177.44, Subdivision 5

⁵² MN/DOT Standard Specifications for Construction, Section 1511

⁵³ ALJ Findings of Fact, Conclusions of Law, and Recommendation, Conclusions (7), Case #12-3000-11993-2

⁵⁴ Minnesota Rules 5200.1106, Subpart 3B(2)

⁵⁵ Minnesota Rules 5200.1106, Subpart 3B(1)

⁵⁶ Minnesota Rules 5200.1106, Subpart 3B(2)

⁵⁷ Minnesota Rules 5200.1106, Subpart 3B(3)

⁵⁸ Minnesota Rules 5200.1106, Subpart 3B(4)

⁵⁹ Minnesota Rules 5200.1106, Subpart 3B(5)(6)

- C. A contractor acquiring trucking services from an ITO, MTO and/or Truck Broker to perform and/or provide "covered" hauling activities shall comply with the payment of the certified state truck rental rates,⁶⁰ which are incorporated into and found elsewhere in this contract.
- D. Each month, in which hauling activities were performed under this contract, the prime contractor and all subcontractors shall submit a **MN/DOT, TP-90550 - Month-End Trucking Report** and **MN/DOT, TP-90551 - Statement of Compliance Form**, along with each ITOs, MTOs and/or Truck Brokers reports to the department.⁶¹ The specifications regarding the dates for submission can be found near the bottom of the **MN/DOT, TP-90551 - Statement of Compliance Form**.
- E. A Truck Broker contracting to provide trucking services in the construction industry may charge a reasonable broker fee to the provider of trucking services.⁶² The prime contractor and any subcontractor contracting to receive trucking services shall not assess a broker fee.
- F. A contractor with employee truck drivers shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS)**.
- G. If after written notice, the prime contractor fails to submit its month-end trucking reports and certification forms and those of any subcontractor, MTO and/or Truck Broker, the department may take such actions as prescribed in section **XVI, (NON-COMPLIANCE AND ENFORCEMENT)**.

XV. CHILD LABOR

- A. Except as permitted under **Subpart B** of this section, no worker under the age of 18 is allowed to perform work on construction projects.⁶³
- B. In accordance with state law, a worker under the age of 18, employed in a corporation totally owned by one or both parents that is supervised by the parent(s), may perform work on construction projects.⁶⁴ However, if this contractor is subject to the federal Fair Labor Standards Act, a worker under the age of 18 is not allowed to perform work in a hazardous occupation.⁶⁵
- C. To protect the interests of the department, the project engineer may remove a worker that appears to be under the age of 18 from the construction project until the contractor or worker can demonstrate proof of age⁶⁶ and compliance with all applicable federal and/or state regulations.⁶⁷

XVI. NON-COMPLIANCE AND ENFORCEMENT

- A. The prime contractor shall be liable for any unpaid wages to its workers or those of any subcontractor, ITO, MTO and/or Truck Broker.⁶⁸
- B. If it is determined that a contractor has violated the state prevailing wage law, or any portion of this contract, the department after written notice, may implement one or more of the following sanctions:
 - 1. Withhold or cause to be withheld from the prime contractor such amounts in considerations or assessments against the prime contractor, whether arising from this contract or other contract with the department.⁶⁹

⁶⁰ Minnesota Rules 5200.1106, Subpart 1

⁶¹ Minnesota Rules 5200.1106, Subpart 10

⁶² Minnesota Rules 5200.1106, Subpart 7(C)

⁶³ Minnesota Rules 5200.0910, Subpart F

⁶⁴ Minnesota Rules 5200.0930, Subpart 4

⁶⁵ 29 CFR Part 570.2(a)(ii)

⁶⁶ Minnesota Statute 181A.06, Subdivision 4

⁶⁷ MN/DOT Standard Specifications for Construction, Section 1701

⁶⁸ MN/DOT Standard Specifications for Construction, Section 1801

⁶⁹ MN/DOT Standard Specifications for Construction, Section 1906

2. The department may reject a bid from a prime contractor that has demonstrated continued or persistent noncompliance with the prevailing wage law on previous or current contracts with the department.⁷⁰
 3. The department may take the prosecution of the work out of the hands of the prime contractor, place the contractor in default and terminate this contract for failure to demonstrate compliance with these provisions.⁷¹
- C. Any contractor who violates the state prevailing wage law is guilty of a misdemeanor and may be fined not more than \$300 or imprisoned not more than 90 days or both. Each day that the violation continues is a separate offense.⁷²
- D. All required documents and certification reports are legal documents; willful falsification of the documents may result in civil action and/or criminal prosecution⁷³ and may be grounds for debarment proceedings.⁷⁴

⁷⁰ Minnesota Statute 161.32, Subdivision 1(d)

⁷¹ MN/DOT Standard Specifications for Construction, Section 1808

⁷² Minnesota Statute 177.44, Subdivision 6

⁷³ Minnesota Statutes 16B, 161.315, Subdivision 2, 177.43, Subdivision 5 177.44, Subdivision 6, 609.63

⁷⁴ Minnesota Statute 161.315 and Minnesota Statute 609.63

NOTICE TO BIDDERS

Minnesota Statutes that require prompt payment to subcontractors:

16A.1245 Prompt payment to subcontractors.

Each state agency contract must require the prime contractor to pay any subcontractor within ten days of the prime contractor's receipt of payment from the state for undisputed services provided by the subcontractor. The contract must require the prime contractor to pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of \$100 or more is \$10. For an unpaid balance of less than \$100, the prime contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

HIST: 1990 c 541 s 1

337.10 Building and construction contracts; prohibited provisions.

Subd. 3. Prompt payment to subcontractors. A building and construction contract shall be deemed to require the prime contractor and all subcontractors to promptly pay any subcontractor or material supplier contract within ten days of receipt by the party responsible for payment of payment for undisputed services provided by the party requesting payment. The contract shall be deemed to require the party responsible for payment to pay interest of 1-1/2 percent per month to the party requesting payment on any undisputed amount not paid on time. The minimum monthly interest penalty payment for an unpaid balance of \$100 or more is \$10. For an unpaid balance of less than \$100, the party responsible for payment shall pay the actual penalty due to the party requesting payment. A party requesting payment who prevails in a civil action to collect interest penalties from a party responsible for payment must be awarded its costs and disbursements, including attorney fees incurred in bringing the action. This subdivision does not apply to construction of or improvements to residential real estate as defined in section 326.83, subdivision 17, or to construction of or improvements to attached single-family dwellings, if those dwellings are used for residential purposes and have fewer than 13 units per structure.

HIST: 1997 c 127 s 1; 1998 c 289 s 1,2; 1999 c 116 s 2

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS



THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 09

Counties within region:

- ANOKA-02
- CARVER-10
- CHISAGO-13
- DAKOTA-19
- HENNEPIN-27
- RAMSEY-62
- SCOTT-70
- WASHINGTON-82

Effective: 2012-10-29

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Transportation
 Office of Construction
 Transportation Building MS650
 John Ireland Blvd
 St. Paul, MN 55155
 (651) 366-4209

Refer questions concerning the prevailing wage rates to:

Department of Labor and Industry
 Prevailing Wage Section
 443 Lafayette Road N
 St Paul, MN 55155
 (651) 284-5091
DLI.PrevWage@state.mn.us

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)				
101 LABORER, COMMON (GENERAL LABOR WORK)	2012-10-29	26.82	15.72	42.54
	2013-05-01	26.77	16.02	42.79
102 LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2012-10-29	26.82	15.72	42.54
	2013-05-01	26.77	16.02	42.79

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
103 LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2012-10-29	17.49	12.04	29.53
	2013-05-01	18.00	12.43	30.43
104 FLAG PERSON	2012-10-29	26.82	15.72	42.54
	2013-05-01	26.77	16.02	42.79
105 WATCH PERSON	2012-10-29	23.42	15.17	38.59
	2013-05-01	23.37	15.47	38.84
106 BLASTER	2012-10-29	29.82	15.72	45.54
	2013-05-01	29.77	16.02	45.79
107 PIPELAYER (WATER, SEWER AND GAS)	2012-10-29	28.82	15.72	44.54
	2013-05-01	28.77	16.02	44.79
108 TUNNEL MINER	2012-10-29	27.52	15.72	43.24
	2013-05-01	27.47	16.02	43.49
109 UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2012-10-29	27.52	15.72	43.24
	2013-05-01	27.47	16.02	43.49
110 SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.	2012-10-29	20.25	0.00	20.25
111 TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2012-10-29	26.82	15.72	42.54
	2013-05-01	26.77	16.02	42.79
112 QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2012-10-29	16.28	4.07	20.35
SPECIAL EQUIPMENT (201 - 204)				
201 ARTICULATED HAULER	2012-10-29	31.12	16.70	47.82
	2013-05-01	31.37	16.70	48.07
202 BOOM TRUCK	2012-10-29	31.12	16.70	47.82
	2013-05-01	31.37	16.70	48.07

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
203 LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2012-10-29	17.49	12.04	29.53
	2013-05-01	18.00	12.43	30.43
204 OFF-ROAD TRUCK	2012-10-29	31.12	16.70	47.82
	2013-05-01	31.37	16.70	48.07
205 PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2012-10-29	31.45	17.95	49.40

HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2	2012-10-29	31.97	16.70	48.67
	2013-05-01	32.22	16.70	48.92

- 302 HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)
- 303 CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)
- 304 ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)
- 305 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)
- 306 GRADER OR MOTOR PATROL
- 307 PILE DRIVING (HIGHWAY AND HEAVY ONLY)
- 308 TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)

GROUP 3	2012-10-29	31.42	16.70	48.12
	2013-05-01	31.67	16.70	48.37

- 309 ASPHALT BITUMINOUS STABILIZER PLANT
- 310 CABLEWAY
- 311 CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)
- 312 DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)
- 313 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)
- 314 DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER
- 315 FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)
- 316 LOCOMOTIVE CRANE OPERATOR
- 317 MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE
- 318 MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)
- 319 TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)
- 320 TANDEM SCRAPER
- 321 TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)
- 322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)

GROUP 4	2012-10-29	31.12	16.70	47.82
	2013-05-01	31.37	16.70	48.07

- 323 AIR TRACK ROCK DRILL
- 324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)
- 325 BACKFILLER OPERATOR

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
326 CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)				
327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)				
328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)				
329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS				
330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS				
331 CHIP HARVESTER AND TREE CUTTER				
332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE				
333 CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)				
334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)				
335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT				
336 CURB MACHINE				
337 DIRECTIONAL BORING MACHINE				
338 DOPE MACHINE (PIPELINE)				
339 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)				
340 DUAL TRACTOR				
341 ELEVATING GRADER				
342 FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)				
343 FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)				
344 FRONT END, SKID STEER OVER 1 TO 5 C YD				
345 GPS REMOTE OPERATING OF EQUIPMENT				
346 HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)				
347 HYDRAULIC TREE PLANTER				
348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)				
349 LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)				
350 MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE				
351 MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)				
352 PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE				
353 PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)				
354 PIPELINE WRAPPING, CLEANING OR BENDING MACHINE				
355 POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)				
356 POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES				
357 PUGMILL				
358 PUMPCRETE (HIGHWAY AND HEAVY ONLY)				
359 RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
360 SCRAPER				
361 SELF-PROPELLED SOIL STABILIZER				
362 SLIP FORM (POWER DRIVEN) (PAVING)				
363 TIE TAMPER AND BALLAST MACHINE				
364 TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)				
365 TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)				
366 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)				
367 TUB GRINDER, MORBARK, OR SIMILAR TYPE				
368 WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)				
GROUP 5	2012-10-29	28.08	16.70	44.78
	2013-05-01	28.33	16.70	45.03
369 AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)				
370 BITUMINOUS ROLLER (UNDER EIGHT TONS)				
371 CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)				

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
372 FORM TRENCH DIGGER (POWER)				
373 FRONT END, SKID STEER UP TO 1C YD				
374 GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)				
375 HYDRAULIC LOG SPLITTER				
376 LOADER (BARBER GREENE OR SIMILAR TYPE)				
377 POST HOLE DRIVING MACHINE/POST HOLE AUGER				
378 POWER ACTUATED AUGER AND BORING MACHINE				
379 POWER ACTUATED JACK				
380 PUMP (HIGHWAY AND HEAVY ONLY)				
381 SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)				
382 SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER				
383 SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER				
384 STUMP CHIPPER AND TREE CHIPPER				
385 TREE FARMER (MACHINE)				
GROUP 6	2012-10-29	26.87	16.70	43.57
	2013-05-01	27.12	16.70	43.82
387 CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER				
388 CONVEYOR (HIGHWAY AND HEAVY ONLY)				
389 DREDGE DECK HAND				
390 FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)				
391 GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)				
392 GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)				
393 LEVER PERSON				
394 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)				
395 POWER SWEEPER				
396 SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS				
397 TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING				
TRUCK DRIVERS				
GROUP 1	2012-10-29	27.50	13.65	41.15
	2013-05-01	27.65	14.00	41.65
601 MECHANIC . WELDER				
602 TRACTOR TRAILER DRIVER				
603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2	2012-10-29	18.00	5.85	23.85
604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3	2012-10-29	26.85	13.65	40.50
	2013-05-01	27.00	14.00	41.00
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4	2012-10-29	26.60	13.65	40.25
	2013-05-01	26.75	14.00	40.75
608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609 DUMP PERSON				

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
610 GREASER				
611 PILOT CAR DRIVER				
612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				
613 TWO AXLE UNIT				
614 SLURRY OPERATOR				
615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616 TRACTOR OPERATOR, UNDER 50 H.P.				
 SPECIAL CRAFTS				
701 HEATING AND FROST INSULATORS	2012-10-29	41.17	18.59	59.76
	2013-06-01	41.67	18.59	60.26
702 BOILERMAKERS	2012-10-29	31.87	24.40	56.27
	2013-01-01	33.52	24.40	57.92
703 BRICKLAYERS	2012-10-29	31.66	17.38	49.04
	2012-10-29	32.20	17.96	50.16
704 CARPENTERS	2012-10-29	32.29	17.78	50.07
	2013-05-01	32.79	17.78	50.57
705 CARPET LAYERS (LINOLEUM)	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVVAGE@STATE.MN.US			
706 CEMENT MASONS	2012-10-29	32.80	17.00	49.80
	2013-05-01	33.05	17.00	50.05
707 ELECTRICIANS	2012-10-29	35.79	23.92	59.71
	2013-05-01	37.19	23.92	61.11
708 ELEVATOR CONSTRUCTORS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVVAGE@STATE.MN.US			
709 GLAZIERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVVAGE@STATE.MN.US			
710 LATHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVVAGE@STATE.MN.US			
711 GROUND PERSON	2012-10-29	24.99	12.37	37.36
	2013-03-31	25.74	12.59	38.33
712 IRONWORKERS	2012-10-29	34.15	21.20	55.35
713 LINEMAN	2012-10-29	37.30	16.00	53.30
	2013-03-31	38.42	16.33	54.75
714 MILLWRIGHT	2012-10-29	23.00	1.43	24.43
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2012-10-29	31.45	17.95	49.40

Highway and Heavy Prevailing Wage

<u>LABOR CODE AND CLASS</u>	<u>EFFECT DATE</u>	<u>BASIC RATE</u>	<u>FRINGE RATE</u>	<u>TOTAL RATE</u>
716 PILEDRIIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2012-10-29	32.49	17.58	50.07
	2013-05-01	33.99	17.58	51.57
717 PIPEFITTERS . STEAMFITTERS	2012-10-29	39.83	22.91	62.74
718 PLASTERERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			
719 PLUMBERS	2012-10-29	39.63	20.71	60.34
720 ROOFER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			
721 SHEET METAL WORKERS	2012-10-29	39.37	20.56	59.93
	2013-05-01	40.29	20.21	60.50
722 SPRINKLER FITTERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			
723 TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			
724 TILE SETTERS	2012-10-29	27.91	18.63	46.54
725 TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			
726 DRYWALL TAPER	2012-10-29	30.17	19.12	49.29
727 WIRING SYSTEM TECHNICIAN	2012-10-29	32.09	12.39	44.48
728 WIRING SYSTEMS INSTALLER	2012-10-29	22.46	10.61	33.07
729 ASBESTOS ABATEMENT WORKER	2012-10-29	27.33	14.94	42.27
	2013-01-01	27.53	15.34	42.87
730 SIGN ERECTOR	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREWWAGE@STATE.MN.US			

**DEPARTMENT OF LABOR AND INDUSTRY
LABOR STANDARDS UNIT**

May 1, 2012

**NOTICE OF CERTIFICATION OF TRUCK RENTAL RATES AND EFFECTIVE
DATE PURSUANT TO MINNESOTA RULES, PART 5200.1105**

On May 1, 2012, the Commissioner of the Department of Labor and Industry (“DLI”) certified the minimum truck rental rates for highway projects in the state’s ten highway and heavy construction areas for trucks and drivers operating “four or more axle units, straight body trucks,” “three axle units,” “tractor only” and “tractor trailers.” The certification followed publication of the Notice of Determination of Truck Rental Rates in the *State Register* on March 12, 2012, and the informal conference held pursuant to Minnesota Rules, part 5200.1105 on April 4, 2012.

According to Minnesota Rules, part 5200.1105, the purpose of the informal conference is for DLI to obtain further input regarding the proposed rates before the rates are certified. Approximately 18 individuals attended the informal conference. Many of the attendees voiced strong concerns regarding the inadequacy of the proposed rates. Among the concerns raised was the fact that the proposed rates were based on 2010 costs, including the 2010 price of fuel. Speakers indicated that because of the dramatic increase in the price of diesel in recent months, the published rates were far below the operators’ current costs. As stated by some attendees:

“This year, right now yesterday we were paying \$4.10...I know when fuel went up that last time, a lot of us had to eat the cost because there was no way of recouping it.”

Testimony of Colleen Donovan, Transcript of Informal Conference, pp. 13, 14.

Ms. Donovan provided DLI written information that her 2010 average cost for fuel was \$2.99 per gallon.

“And, like the price of fuel, \$4.25, \$4.30. That’s what it is down by my place, anyway.”

Testimony of Bob Dornsbach, Transcript of Informal Conference, p. 32.

Mr. Bob Dornsbach provided DLI written information that in October 2010 his fuel cost was \$3.15 per gallon.

In response to the informal conference Jim Lloyd provided written information that his 2010 fuel cost was close to \$3.00 per gallon and “now is at \$4.00 plus and it does not look like it is going to decrease.”

After the informal conference, Tom Barnes provided written information that his fuel costs in March 2010 were \$2.82 per gallon and that his fuel costs for March 2012 were \$4.07 per gallon.

Following the informal conference, DLI staff obtained data from the United States Department of Energy (“DOE”) regarding the price of diesel during 2010 as compared to current costs.¹ That data, available at www.eia.doe.gov, show that the average price of diesel during 2010 was \$2.964 per gallon. The average price of diesel during January, February, and March 2012 was \$3.862 per gallon. Consequently, the average price of diesel for the first three months of this year was 30.4% higher than the average cost of diesel during 2010.

The purpose of Minnesota Rules, part 5200.1105, as stated in its Statement of Need and Reasonableness, is to “provide equitable compensation” to independent truck operators. The commissioner finds that in order to carry out the purpose of the rule, it is appropriate to consider the concerns expressed at the informal conference² and to use average 2012 diesel costs in computing and certifying 2012 truck rental rates. Specifically, the commissioner finds that the extreme disparity between 2010 and current fuel costs warrants this adjustment in order for truck operators to be equitably compensated.³

Construction truck operating costs were initially determined by survey on a statewide basis and were the subject of further input by interested parties attending the informal conference pursuant to Minnesota Rules, part 5200.1105 on April 4, 2012 and further data on fuel prices from the DOE for 2010 and 2012. In light of the discussion above, fuel costs stated in the surveys were adjusted upward by 30.4% to determine statewide operating costs. As a result of this adjustment, the operating cost for “four axle units, straight body trucks” is determined to be \$51.58 per hour; the operating cost for “three axle units” is determined to be \$37.35 per hour; the operating cost for “tractor only” is determined to be \$41.43 per hour; and the operating cost for “tractor trailers” is determined to be \$52.89 per hour.

Adding the prevailing wage for drivers of these four types of trucks from each of the State’s ten highway and heavy construction areas to the operating costs, the minimum

¹ U.S. Energy Information Administration Midwest No. 2 Retail Prices (Dollars per Gallon)

² The DLI has historically used input from the informal conferences to establish certified rates. For example, truck rental rates certified in 2009 varied from the proposed rates based on information gathered at the informal conference.

³ The commissioner notes that the Minnesota Department of Transportation incorporates a fuel adjustment clause in certain of its contracts to accommodate the fluctuating price of fuel. That clause generally provides for the adjustment of contract payments when the cost of fuel increases or decreases by more than 15% from an indexed rate during the term of the contract. By using 2012 fuel costs in certifying 2012 truck rental rates, the commissioner is not intending to adopt or establish a similar fuel adjustment mechanism. Rather, he is taking this action to effectuate the purpose of Part 5200.1105 in light of the concerns raised at the informal conference and the dramatic increase in the price of diesel between 2010 and effective date of 2012 truck rental rates.

hourly truck rental rate for the four types of trucks in each area is certified to be as follows:

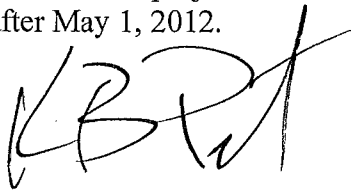
		3 Axle Units		
	Effective Date	607 Driver Rate	Operating Cost	Truck Rental Rate
Region 1	May 1, 2012	40.10	37.35	77.45
Region 2	May 1, 2012	33.76	37.35	71.11
Region 3	May 1, 2012	25.40	37.35	62.75
Region 4	May 1, 2012	33.76	37.35	71.11
Region 5	May 1, 2012	40.50	37.35	77.85
Region 6	May 1, 2012	38.30	37.35	75.65
Region 7	May 1, 2012	33.76	37.35	71.11
Region 8	May 1, 2012	33.76	37.35	71.11
Region 9	May 1, 2012	40.50	37.35	77.85
Region 10	May 1, 2012	13.22	37.35	50.57

		4 or more Axle Units		
	Effective Date	604 Driver Rate	Operating Cost	Truck Rental Rate
Region 1	May 1, 2012	40.20	51.58	91.78
Region 2	May 1, 2012	33.91	51.58	85.49
Region 3	May 1, 2012	24.71	51.58	76.29
Region 4	May 1, 2012	33.91	51.58	85.49
Region 5	May 1, 2012	26.34	51.58	77.92
Region 6	May 1, 2012	38.40	51.58	89.98
Region 7	May 1, 2012	20.87	51.58	72.45
Region 8	May 1, 2012	20.87	51.58	72.45
Region 9	May 1, 2012	40.60	51.58	92.18
Region 10	May 1, 2012	32.91	51.58	84.49

		Tractor				
	Effective Date	602 Driver Rate	Operating Cost	Tractor Only Truck Rental Rate	Plus Trailer Operating Cost	Tractor Trail Rental Rate
Region 1	May 1, 2012	40.75	41.43	82.18	11.46	93.64
Region 2	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 3	May 1, 2012	22.37	41.43	63.80	11.46	75.26
Region 4	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 5	May 1, 2012	21.38	41.43	62.81	11.46	74.27
Region 6	May 1, 2012	37.95	41.43	79.38	11.46	90.84
Region 7	May 1, 2012	25.85	41.43	67.28	11.46	78.74
Region 8	May 1, 2012	34.42	41.43	75.85	11.46	87.31
Region 9	May 1, 2012	41.15	41.43	82.58	11.46	94.04
Region 10	May 1, 2012	33.42	41.43	74.85	11.46	86.31

The operating costs, including the average truck broker fees paid by those survey respondents who reported paying truck broker fees, and the truck rental rates may also be reviewed by accessing DLI's website at www.dli.mn.gov. Questions regarding the operational costs and truck rental rates can be answered by calling (651) 284-5091.

The minimum truck rental rates certified for these four types of trucks in the state's ten highway and heavy construction areas will be effective for all highway and heavy construction projects financed in whole or part with state funds advertised for bid on or after May 1, 2012.



KEN B. PETERSON
COMMISSIONER

NOTICE TO BIDDERS
MARKING CHANGES FROM BOILER PLATE SPECIAL PROVISIONS
December 22, 2010

Bidders are advised that some changes from our normal special provisions are marked to assist in identifying changes. Mn/DOT believes that the majority of the changes are marked, but does not guarantee it. Bidders are advised that they are still responsible for due diligence in determining contract requirements.

Neither Mn/DOT's failure to mark changes, nor the fact that these provisions may vary from provisions used for previous projects, will support a claim by the Contractor for additional compensation or time.

The following provisions, when used, will always be Project specific and will not have changes marked:

Spec. #	Section Name
	SPECIAL PROVISIONS ENCOURAGING INDIAN EMPLOYMENT
	CONTACT INFORMATION
	PRE-LETTING MEETING
1404	MAINTENANCE OF TRAFFIC AND (2563) TRAFFIC CONTROL
1506	SUPERVISION BY CONTRACTOR
1507	UTILITY PROPERTY & SERVICE
1706	EMPLOYEE HEALTH AND WELFARE
1718	FURNISHING RIGHT OF WAY
1803	PROSECUTION OF WORK
1806	DETERMINATION AND EXTENSION OF CONTRACT TIME
1807	FAILURE TO COMPLETE THE WORK ON TIME
2563	TRAFFIC CONTROL SUPERVISOR

DIVISION S

S-1 CONTACT INFORMATION

Questions regarding this Project, including any questions prior to bidding, shall be directed to:

Steve Kordosky
Metro District, Mendota Office
Telephone No. 651/366-5904

S-2 PRE-LETTING CONFERENCE

Bidders are advised that a Pre-Letting Conference will be held at **MnDOT Metro District South Resident Office at 2229 Pilot Knob Road, Mendota Heights, Minnesota 55120 at 9:00 a.m. on Tuesday, May 7, 2013, (Phone # 651/366-5901)** to discuss any questions regarding this Contract. All interested parties are invited to attend.

S-3 EMERALD ASH BORER COMPLIANCE

This Project is located, all or in part, in a county that the Minnesota Department of Agriculture has placed under an Emerald Ash Borer Quarantine. Any work for this Contract is subject to the following:

S-3.1 **No** part of an Ash (*Fraxinus* spp) tree from a quarantined area can be marketed to wood-using industries or individuals without an Emerald Ash Borer compliance agreement with Minnesota Department of Agriculture.

The Contractor shall not make ash or any non-coniferous (hardwood) species with bark attached available to the public for use as firewood from the quarantined area. The Contractor shall not transport entire ash trees, limbs, branches, logs, chips, ash lumber with bark, stumps and roots outside of a quarantined county without fulfilling the requirements of an Emerald Ash Borer Compliance Agreement with the Minnesota Department of Agriculture. Contact the Minnesota Department of Agriculture at 1-888-545-6684 or visit the Emerald Ash Borer website at: <http://www.mda.state.mn.us/plants/pestmanagement/eab.aspx> to find out which counties are quarantined.

S-3.2 If the ash material is going to be shipped out of Minnesota, the Contractor shall contact John.o.haanstad@aphis.usda.gov for United States Department of Agriculture joint Emerald Ash Borer Compliance Agreement approval with the Minnesota Department of Agriculture.

S-3.3 The Contractor shall dispose of ash trees:

- (1) In accordance with the Emerald Ash Borer Compliance Agreement, and
- (2) By utilizing the ash wood chips within the construction limits for erosion control, construction exit pads or landscaping purposes.

S-3.4 No direct compensation will be made for compliance with these requirements.

S-4 USE OF ADHESIVE ANCHORS

The use of adhesive anchors in sustained tension is prohibited. Other application utilizing adhesive anchors, such as metal rail attachment, in a non-direct tensile application is permitted.

S-5 **TARGETED GROUP BUSINESS (TGB) AND VETERAN-OWNED
SMALL BUSINESS**

(2013 version (Rev. 3/7/13))

The MnDOT Targeted Group Business (TGB) and Veteran-owned Small Business programs are part of the MnDOT initiative to increase small business participation on state funded projects. These programs are intended to provide eligible businesses with increased access to state contracting opportunities. Eligibility requirements for both programs are established pursuant to Minn. Stat. §16C.16 and Minn. Rule Parts 1230.1600-1820. TGBs and Veteran-owned Small businesses bidding as prime contractors may receive a preference in the bid amount, and contracts may include goals to increase participation of TGBs and Veteran-owned small businesses as subcontractors.

Bidders are directed to the attached "Targeted Group Business (TGB) and Veteran-Owned Small Business Special Provisions" for details.

The Veteran and TGB goals established for this Project are applicable for the total Contract amount including orders for additional work under Indefinite Delivery, Indefinite Quantity (IDIQ) Contract Provisions. The Contractor must prepare and maintain information demonstrating the good faith efforts it took to obtain participation from TGB and Veteran businesses in an effort to meet the goal(s). Good faith efforts are explained in Targeted Business Group and Veteran-Owned Small Business Special Provisions, Section 11. The Office of Civil Rights may request to review the Contractor's good faith efforts information at any time.

The Contractor must submit to the Office of Civil Rights an Exhibit A form for each TGB or Veteran firm participating in the additional work order.

S-6 **(1103) DEFINITIONS**

The provisions of MnDOT 1103 are supplemented and/or modified with the following:

S-6.1 The definition for **SPECIMEN TREE** is revised to read as follows:

A notable and valued tree in consideration of species, size, condition, age, longevity, durability, crown development, function, visual quality, and public or private prominence or benefit as indicated in the contract documents or as determined by the Engineer.

S-7 **(1206) PREPARATION OF PROPOSAL**

The provisions of MnDOT 1206 are supplemented and/or modified with the following:

S-7.1 The first paragraph of MnDOT 1206.2 is hereby changed to read:

The bidder's attention is directed to MN Statute § 161.32 subd. 1c, which provides among other things, that a bid will be rejected if it contains any alterations or erasures that are not corrected as follows:

S-7.2 The following is added to MnDOT 1206:

1206.4 **VALUE OF SUBMITTAL**

Prior to March 1, 2011, **ALL** **submittals** with a value of over \$1,000,000.00 (one million dollars) **MUST** utilize the "Two way electronic bidding" method described in MnDOT 1206. After March 1, 2011, **ALL** **submittals** with a value of over **\$150,000.00 (one hundred fifty thousand dollars)** **MUST** utilize the "Two way electronic bidding" method described in MnDOT 1206.

S-8 **(1209) DELIVERY OF PROPOSALS**
(2013 version)

The provisions of MnDOT 1209 are hereby supplemented with the following:

S-8.1 **ALL** bids submitted, after March 1, 2011, with a value of over **\$150,000.00 (one hundred fifty thousand dollars)** **MUST** utilize the "Two way electronic bidding" method described in MnDOT 1206.

S-8.2 Bids submitted under **\$150,000.00 (one hundred fifty thousand dollars)** may utilize the "Two way electronic bidding" method described in MnDOT 1206 or utilizing ANY OTHER METHOD OF APPROVED BID SUBMITTAL MUST RETURN paper copies of the following :

- 1) Title Sheet of the Proposal
- 2) The complete "Schedule of Prices", with all changes made in ink and initialed.
- 3) Form 21126D, attached to the back of this Proposal, with signatures and all addenda acknowledged
- 4) Form CM 32-34 (EEO Clause)
- 5) Non-Collusion Declaration
- 6) MnDOT Bid Bond Form

S-8.3 Electronic Bidders are hereby reminded that if the Goal folder(s) contains more than one unknown sub-folder, MnDOT will deem the highest goal commitment submitted to be the bidder's goal commitment and will use that figure for determining whether the goal has been met, or for purposes of making a good faith efforts review.

S-9 **(1210) WITHDRAWAL OR REVISION OF PROPOSALS**

The provisions of MnDOT 1210 are hereby deleted and replaced with the following:

Any bidder may withdraw or revise its Proposal after it has been deposited with the Contracting Authority, provided the request for withdrawal or revision is received in writing before the time set for opening proposals.

The Department reserves the right to revise the Plans, Specifications, Special Provisions, and Proposal form for any Project at any time prior to the date set for opening the Proposals. Revisions will be made by Addendum, duly numbered and dated, subject to the following provisions:

- (1) Each Addendum will be delivered by certified mail, courier service, fax, or other electronic transmission to each prospective bidder who has received a Proposal form prior to the date of Addendum. The Addendum will be included with all Proposal forms issued to bidders after the date of the Addendum.
- (2) If revisions made by an Addendum require considerable change or reconsideration on the part of the bidder, the date set for opening the Proposals may be postponed, in which case the Addendum will include an announcement of the new date set for opening Proposals.
- (3) Each bidder shall acknowledge receipt of each Addendum, either in the space provided on the Proposal form or by submitting a letter prior to the time set for opening Proposals.

S-10 **(1212) PUBLIC OPENING OF PROPOSALS**

The provisions of MnDOT 1212 are hereby deleted and replaced with the following:

Proposals will be opened at the time indicated in the Advertisement for Bids.

S-11 **(1301) CONSIDERATION OF PROPOSALS (INDEFINITE DELIVERY/INDEFINITE QUANTITY)**

The Minnesota Department of Transportation (MnDOT), District Metro, is requesting bids from entities (“bidders”) interested in the Noise Wall Indefinite Delivery/Indefinite Quantity (“IDIQ”) Single-Award Contract (the “Contract”).

S-11.1 **DEFINITIONS**

- (A) Contract Time: Number of working days assigned to an individual Task Order based on the quantity of work in the Task Order.
- (B) IDIQ: type of Contract that provides for an indefinite quantity of work during a fixed period of time.
- (C) Task Order: document executed to determine Location, Contract Time and Scope of Work, (including pay items).
- (D) Task Order Item List; complete list of bid items shown on the Bid Schedule that the Contractor can anticipate being used repetitively to perform the Task Orders of this IDIQ Contract.

S-11.2 **CONTRACT DESCRIPTION**

The Contract scope is salvaging any rub rail, removing any plywood, removing in place noise wall wood planking except for the bottom board, furnishing and installing new treated wood planking on the existing posts, and installing the salvaged rub rail. The Contract also includes providing the appropriate and necessary traffic control measures.

The Contract will be awarded to the lowest responsible bidder according to the items listed in the Bid Schedule included in this Proposal. This will obligate the Contractor to perform all work necessary to complete any Task Order by the deadlines specified, for the prices bid in the Bid Schedule and carried forward to the Task Order). New items may be added to a Task Order in accordance with MnDOT 1402.

Task Orders under this Contract will be located in District Metro. This includes the following Minnesota Counties: Anoka, Carver, Dakota, Hennepin, Ramsey and Washington.

Task Orders under this Contract generally consist of salvaging any rub rail, removing any plywood, removing in place noise wall wood planking except for the bottom board, furnishing and installing new treated wood planking on the existing posts, and installing the salvaged rub rail. Additional major responsibilities to the Contractor are quality and safety.

Each Task Order will be executed separately. No work will be allowed to start prior to execution of each individual Task Order. Any work performed prior to final execution (all signatures) of the Task Order, will be deemed unauthorized work for which no compensation will be made.

S-11.3 **ESTIMATED COST AND MAXIMUM TIME ALLOWED**

The total compensation of the Contract will not exceed \$2,500,000.00 and may not be less than \$300,000.00.

Each individual task order will be at least 500 lineal feet and typically one (1) wall section.

Contract Time will be established individually for each Task Order issued under this Contract, in accordance with the requirements of the work as shown in Section S-33 (DETERMINATION AND EXTENSION OF CONTRACT TIME) of these Special Provisions.

S-11.4 CONTRACT SCHEDULE

The Department anticipates the following additional Contract milestone dates. This schedule is subject to revision by the Department.

Deadline for submitting Clarifications	May 8, 2013
Anticipated First Task Order	July 15, 2013

S-11.5 CONTACT INFORMATION AND CLARIFICATION PROCESS

MnDOT will be using a clarification process to allow the Department to respond to questions during the period this Project is Advertised for Bids.

The Clarification responses are meant to clarify the Bidding Package, but will not be used for material changes. Material changes to the Bidding Package will be made via the addendum process.

Beginning with the Project advertisement and continuing until award of a contract for this Project (or cancellation), no employee, member or agent of any potential contractor, sub-contractor or supplier shall have any ex parte communications regarding this Project with any member of MnDOT, except for communications expressly permitted by the Engineer. Any potential contractor, sub-contractor or supplier engaging in such prohibited communications may be disqualified at the sole discretion of MnDOT.

All questions regarding this Project, including any questions prior to bidding shall be directed as indicated in Section S-1 (CONTACT INFORMATION) of these Special Provisions.

All requests for clarifications of this Bidding Package **must be in writing and submitted via email**. E-Mail all request for clarifications to Steve.Kordosky@state.mn.us, put "SP 8825-466 Clarification Request" in the subject line and request receipt acknowledgement. The request for clarification needs to be as specific as possible, indicating the Proposal Section, Plan Sheet or Pay Item in question.

All responses to requests for clarifications will be posted, at the following website: : <http://www.dot.state.mn.us/bidlet/> and search for your project, by the Engineer and provided to all plan holders. MnDOT will not be bound by the responses to the clarifications requests. Contractors shall only rely on the Plans, Specification Special Provisions, addendums and other Contract documents.

S-11.6 PRICE PROPOSAL

All Price Proposals will be subject to the conditions of Section S-8 (DELIVERY OF PROPOSALS) of these Special Provisions.

Except as identified within the Contract Documents, the line items appearing in the Bid Schedule will be used for the basis for selecting the lowest responsible bidder only. Payments to the Contractor under the Contract will be made based on the Bid Schedule and any necessary negotiated items as shown on the Task Orders when authorized.

S-11.7 TASK ORDER ITEM LIST (TOIL)

After Contract approval, the Bid Schedule will be used to create Individual Task Order. The TOIL will be used as a mechanism to identify the scope of work for all Task Orders issued under this Contract.

This TOIL is comprised of all items that will be utilized as IDIQ bid items. Items not shown on the TOIL, but included in the Bid Schedule may be used on a single Task Order at the unit prices as bid, and will not be used as an IDIQ bid item.

Item Number	Description	Units
2012.602	TRAFFIC CONTROL TYPE 1	EACH
2012.602	TRAFFIC CONTROL TYPE 2	EACH
2012.602	TRAFFIC CONTROL TYPE 4	EACH
2104.503	REMOVE WOOD NOISE WALL	SQ FT
2422.618	WOOD NOISE BARRIER	SQ FT

S-11.8 POST AWARD PRICING

(A) Pay Items Contained in the Bid Schedule

The unit prices as shown on the Bid Schedule will be assigned to the items in the Task Order and shall become the basis for pricing all task orders. The Task Order will become a Contract document. Since the scope of work in all subsequent Task Orders is not expected to vary significantly from the types shown in the Bid Schedule, the Engineer will use this as the basis for developing Task Order(s).

(B) Pay Items Not Contained in the Bid Schedule

Pay items that are not contained in the Bid Schedule, may be added to the Contract on a negotiated basis in accordance with MnDOT 1904 the first time they are encountered in the Contract. These additional pay items will be identified in the Task Order prepared by the Engineer. Once a mutual agreement has been reached, the unit price will be added to the Contract and the new unit price pay items will be used for all subsequent job orders where they are applicable.

The Contractor will be provided with a TOIL for all work associated with the work. The Task Order shall be executed with a written signature and returned to the Engineer within 7 calendar days. This signed Task Order shall confirm location, quantities of work to be performed, starting date and number of Working Days allowed for the work. If the Contractor fails to return the executed Task Order in the required 7 calendar days and the Contract Time under Section S-33 (DETERMINATION AND EXTENSION OF CONTRACT TIME) of these Special Provisions is specified as a number of working days, the Department reserves the right to reduce the Contract Time to reflect the delay caused by the Contractor. If the Contract Time is specified as a completion date, the Contractor's delay in returning the executed Task Order is an avoidable delay under MnDOT 1806.1A and shall not entitle the Contractor to an Extension of Contract Time for any Task Order. If the return of the Task Order within the specified time is impossible due to the absence of one or more of the required signers, an extension of time may be granted by the Department provided satisfactory evidence is furnished that the Task Order will be executed.

S-12 (1305) REQUIREMENT OF CONTRACT BOND

The provisions of MnDOT 1305 are hereby deleted and replaced with the following:

The successful bidder shall furnish a payment bond equal to the Contract amount and a performance bond equal to the Contract amount as required by Minnesota Statutes, section 574.26. The surety and form of the bonds shall be subject to the approval of the contracting authority.

The contracting authority shall require for all contracts less than or equal to five million dollars (\$5,000,000.00), that the aggregate liability of the payment and performance bonds shall be twice the amount of the Contract. All contracts in excess of five million dollars (\$5,000,000.00) shall have an aggregate liability equal to the amount of the Contract.

Upon request from the Department the Contractor shall provide evidence of payment and performance bond coverage in the current Contract amount. It is anticipated that the Contract amount may exceed the bid amount up to the maximum amount as specified in Section S-11 (CONSIDERATION OF PROPOSALS (INDEFINITE DELIVERY/INDEFINITE QUANTITY) of these Special Provisions.

No separate payment will be made to the Contractor for bond costs.

S-13 **(1402) ALTERATIONS OF THE WORK AND CHANGED CONDITION**

The provisions of MnDOT 1402 are hereby supplemented by the following:

S-13.1 The following is added to MnDOT 1402.2:

In 1402.2A, "Differing Site Conditions," 1402.2B, "Suspensions of Work Ordered by the Engineer," and 1402.2C, "Significant Changes to the Character of the Work," the term "adjustment" means compensation in accordance with 1904, "Extra and Force Account Work," 1905, "Elimination of Work," 1907, "Payment for Surplus Material." and the granting of a time extension in accordance with 1806, "Determination and Extension of Contract Time."

S-14 **(1404) MAINTENANCE OF TRAFFIC AND (2012) TRAFFIC CONTROL**

All traffic control devices shall conform and be installed in accordance to the "Minnesota Manual on Uniform Traffic Control Devices" (MN MUTCD) and Part 6, "Field Manual for Temporary Traffic Control Zone Layouts", the "Guide to Establishing Speed Limits in Highway Work Zones", the Minnesota Flagging Handbook, the provisions of MnDOT 1404 and 1710, the Minnesota Standard Signs Manual, the Traffic Engineering Manual, the Traffic Control Layouts/Typical Traffic Control Layouts in the Plans, and these Special Provisions.

The Contractor shall furnish, install, maintain, and remove all traffic control devices required to provide safe movement of vehicular traffic through the Project during the life of the Contract from the start of Contract operations to the final completion thereof. The Engineer will have the right to modify the requirements for traffic control as deemed necessary due to existing field conditions. The highways shall be kept open to traffic at all times, except as modified below.

Traffic control devices include, but are not limited to, barricades, warning signs, trailers, flashers, cones, and drums, as required and sufficient barricade weights to maintain barricade stability.

S-14.1 **TRAFFIC CONTROL**

(A) The Contractor shall be responsible for the immediate repair or replacement of all traffic control devices that become damaged, moved or destroyed, of all lights that cease to function properly, and of all barricade weights that are damaged, destroyed, or otherwise fail to stabilize the barricades. The Contractor shall further provide sufficient surveillance of all traffic control devices at least once every 24 hours. The Contractor shall furnish the Engineer names, addresses, and phone numbers of at least three (3) local persons responsible for all traffic control devices. These individuals shall be "on call" 24 hours per day, seven days per week during the times any traffic control devices, furnished and installed by the Contractor, are in place. The required information shall be submitted to the Engineer at the Pre-construction Conference.

(B) If traffic control layouts are not present in the Plan, or the Contractor modifies the layout or sequence from the Plan, the Contractor shall submit the proposed traffic control layout to the Engineer, for approval, at least fourteen (14) days prior to the start of construction. At least 24 hours prior to placement, all traffic control devices shall be available on the Project for inspection by the Engineer. The Contractor shall modify his/her proposed traffic control layout and/or devices as deemed necessary by the Engineer.

(C) The Contractor shall notify the Engineer in writing at least 72 hours prior to the start of any construction operation that will necessitate lane closure or internal traffic control signing.

(D) The Contractor shall inspect, on a daily basis, all traffic control devices, which the Contractor has furnished and installed, and verify that the devices are placed in accordance with **the Traffic Control Layouts**, these Special Provisions, and/or the MN MUTCD. Any discrepancy between the placement and the required placement shall be immediately corrected.

The Contractor shall be required to respond immediately to any call from the Engineer or his designated representative concerning any request for improving or correcting traffic control devices. **If the Contractor is negligent in correcting the deficiency within one hour of notification the Contractor shall be subject to an hourly charge assessed at a rate of \$250.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(E) The person performing the inspection in paragraph (D) above, shall be required to make a daily log. This log shall also include the date and time any changes in the stages, phases, or portions thereof go into effect. The log shall identify the location and verify that the devices are placed as directed or corrected in accordance with the Plan. All entries in the log shall include the date and time of the entry and be signed by the person making the inspection. The Engineer reserves the right to request copies of the logs as he deems necessary. The Contractor shall be required to provide copies of the inspection logs, within the time frame agreed upon, when requested by the Engineer. **If the Contractor is negligent in providing the inspection logs within the time frame agreed upon, the Contractor shall be subject to a daily charge assessed at a rate of \$500.00 per calendar day for each calendar day or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(F) The third sentence of paragraph 2 in MnDOT 1404.7 (Winter Suspension) is hereby revised as follows:

"In the event that any Contractor-owned traffic control devices are damaged or destroyed making them ineffective for their intended use, the Contractor will receive payment in the amount of the value of the traffic control device as determined by the Engineer."

(G) If, at any time, the Contractor fails to, in a timely manner, properly furnish, install, maintain or remove any of the required traffic control devices, the Department reserves the right to properly correct the deficiency. **Each time the Department takes such corrective action, the costs thereof, including mobilization, plus \$5,000 will be deducted from monies due or coming due the Contractor.**

S-14.2 TRAFFIC CONTROL TYPE 1 (Shoulder Closure)

Traffic Control Type 1 will be measured by the number of full shoulder closures installed and removed as required. The closure is limited to one (1) mile in length.

The payment(s) shall be compensation in full for all costs of furnishing, installing, maintaining, and removing the individual traffic control devices as specified in these Special Provisions. The bid price shall also include any extra signing needed to facilitate adjustment to the traffic control setup needed to accommodate traffic under construction.

If the Contractor requests changes in traffic control and these changes are implemented, there will be no increase or decrease in the unit bid price for the stage(s) of traffic control.

Payment for furnishing, installing, maintaining, and subsequently removing shoulder closures as required will be made under Item 2012.602 (Traffic Control Type 1) at the Contract bid per each. For each additional mile or portion of a mile of closed shoulder, the Contractor will be compensated at a rate of 25% of the bid price of Traffic Control Type 1.

S-14.3 TRAFFIC CONTROL TYPE 2 (Lane Closure)

Traffic Control Type 2 will be measured by the number of full lane closures installed and removed as required. A full lane closure is defined as closing one lane to traffic. The closure is limited to one (1) mile in length.

The payment(s) shall be compensation in full for all costs of furnishing, installing, maintaining, and removing the individual traffic control devices as specified in these Special Provisions. The bid price shall also include any extra signing needed to facilitate adjustment to the traffic control setup needed to accommodate traffic under construction and shall also include any Ramp and/or Turn lane closures that are within a requested lane closures.

If the Contractor requests changes in traffic control and these changes are implemented, there will be no increase or decrease in the unit bid price for the stage(s) of traffic control.

Payment for furnishing, installing, maintaining, and subsequently removing lane closures as required will be made under Item 2012.602 (Traffic Control Type 2) per each.

If more than a single lane is required to be closed, the Contractor will be compensated as follows:

Double Lane Closure	price of Traffic Control Type 2 times 1.5
Triple Lane Closure	price of Traffic Control Type 2 times 2.0

For each additional mile or portion of a mile of closed lane, the Contractor will be compensated at a rate of 25% of the bid price of Traffic Control Type 2.

For Low Speed Roadways of 40 mph or less (as stated in the MN MUTCD), the Contractor will be compensated at a rate of 75% of the bid price of Traffic Control Type 2.

S-14.4 TRAFFIC CONTROL TYPE 4 (Ramp/Turn Lane Closure)

Traffic Control Type 4 will be measured by the number of full ramp/turn lane closures **only** (installed and removed as required).

The payment(s) shall be compensation in full for all costs of furnishing, installing, maintaining, and removing the individual traffic control devices as specified in these Special Provisions. The bid price shall also include any extra signing needed to facilitate adjustment to the traffic control setup needed to accommodate traffic under construction.

If the Contractor requests changes in traffic control and these changes are implemented, there will be no increase or decrease in the unit bid price for the stage(s) of traffic control. Payment for furnishing, installing, maintaining, and subsequently removing ramp closures as required will be made under Item 2012.602 (Traffic Control Type 4).

S-14.5 VEHICLE WARNING LIGHT SPECIFICATION

All Contractors', subcontractors' and suppliers' mobile equipment, operating within the limits of the Project with potential exposure to passing traffic, shall be equipped with operable warning lights which meet the appropriate requirements of the SAE specifications. This would include closed roads that are open to local traffic only. This also includes any vehicle which enters the traveled roadway at any time. The SAE specification requirements are as follows:

360 Degree Rotating Lights - SAE Specification J845

Flashing Lights - SAE Specification J595

Flashing Strobe Lights - SAE Specification J1318

Lights shall be mounted so that at least one light is visible at all times from a height of 3.5 feet and from a 100 foot radius about the equipment. In order to meet the 360 degree at 18 m [**60 foot**] radius requirements supplemental lighting may be used in addition to the lights on the Approved Products List. All supplemental lights must be SAE Class 1 certified. This specification is to be used for both day and night time operations. All costs incurred to provide warning lights shall be at no cost to the Department. These warning lights shall also be operating and visible when a vehicle decelerates to enter a construction work zone and again when a vehicle leaves the work zone and enters the traveled traffic lane.

Contractor shall equip their vehicles with lights that are on the Approved Products List which can be found at: <http://www.dot.state.mn.us/products/vehiclelighting/index.html> .

S-14.6 FLAGGER TRAINING

Any person acting as a flagger on this Project shall have attended a training session taught by a Contractor's qualified trainer. The Contractor's qualified trainer shall have completed a "MnDOT Flagger Train the Trainer Session" in the five years previous to the start date of this Contract and shall be on file as a qualified flagger trainer with the Department. The Flagger Trainer's name and Qualification Number shall be furnished by the Contractor at the pre-construction meeting. The Contractor shall provide all flaggers with the MnDOT Flagger Handbook and shall observe the rules and regulations contained therein. This handbook shall be in the possession of all flaggers while flagging on the Project. The Contractor shall obtain handbooks from the Department. Flaggers shall not be assigned other duties while working as authorized flaggers. The "Checklist for Flagger Training" form shall be furnished to the Engineer any time a new flagger reports to work on the Project. The "Checklist for Flagger Training" form can be found at: <http://www.dot.state.mn.us/const/wzs/flagger.html>.

S-14.7 TEMPORARY LANE CLOSURE REQUIREMENTS:

(A) **The Contractor shall contact the Regional Transportation Management Center (RTMC) at 651-634-5307 at the time when a lane closure begins and again at the time when the lane closure ends. The Contractor shall also contact the RTMC at the time when a full roadway closure begins and again at the time when a full roadway closure ends.**

(B) Unless otherwise approved by the Engineer, any temporary lane closure that is adjacent to traffic, and is extending to or beyond 300 m [**1000 feet**] shall have a minimum of one Type III barricade, or 3 drums, placed in the closed lane for every 300 m [**1000 feet**] of extension. Any lane closure that is adjacent to traffic and in place 3 days or more, shall use the Type III barricade only.

(C) All temporary lane closures shall have Type B Channelizers (drums, Type I or Type II barricades, vertical panel or Direction Indicator Barricades) in the lane closure taper and also in any shifts in traffic alignment.

(D) Short Term Duration lane closures will not be permitted during inclement weather, nor any other time when, in the opinion of the Engineer, the lane closure will be a greater than normal hazard to traffic.

(E) Temporary lane closures or other restrictions by the Contractor, during work hours and consistent with the time restrictions, will be permitted during those hours and at those locations approved by the Engineer. Requests for temporary lane closures shall be made at least 24 hours prior to such closures. When a temporary lane closure is used by the Contractor, the closure shall be **incidental work and no direct compensation** will be made therefore.

(F) **Temporary lane restrictions will be permitted in accordance with the latest edition of the Minnesota Department of Transportation Metro District Lane Closure Manual applicable lane closure charts. These charts are available online at the <http://www.dot.state.mn.us/metro/trafficeng/laneclosure/index.html>.** Lane closures that cross segments as defined in the latest edition of the Minnesota Department of Transportation Metro District Lane Closure Manual applicable lane closure charts shall follow the more restrictive time limits. All other temporary lane restrictions will require Project Engineer's authorization with a three (3) working days advanced request. **Work which will restrict or interfere with traffic shall not be performed between 12:00 P.M. noon on the day preceding and 9:00 A.M. on the day following any consecutive combination of a Saturday, Sunday and legal holiday.**

The Engineer will have the right to lengthen, shorten, or otherwise modify the foregoing periods of restrictions as actual traffic conditions may warrant. **If the Contractor is negligent in adhering to the established time schedules, he shall be subject to an hourly charge assessed at a rate of \$500.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

When working on the shoulder or median and within three (3) feet of the traveled lane the Contractor shall only perform this work using a lane closure on mainline and adhering to the above lane closure restrictions.

When working on the shoulder or median and at a distance greater than three (3) feet from the traveled lane the Contractor shall perform this work using a shoulder closure. Shoulder closures shall be removed daily.

All work performed over a lane of traffic shall require the lane to be closed.

(G) The Contractor shall provide one vehicle or trailer mounted flashing arrow panel for each lane of each work area where traffic is restricted. The arrow panel shall meet the requirements of the MN MUTCD, and be on the qualified products list for flashing arrow panels found at: <http://www.dot.state.mn.us/products/temporarytrafficcontrol/tccelectronicquipment.html> , and shall be equipped with a light that is visible to personnel in the work area to indicate that the unit is in operation. The flashing arrow panel shall be **incidental** for each type of Traffic Control pay item.

It is imperative that the Contractor continually operate each Flashing Arrow Panel at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance.

Except as approved by the Engineer, the Flashing Arrow Panel shall be stored off the shoulder when not in use. In the event the Engineer allows the arrow panel to remain on the shoulder, the arrow panel shall be delineated according to Layout 4 (Partial Shoulder Closure) in the field manual, as determined by the Engineer.

(H) The Contractor shall furnish flag persons as required to adequately control traffic. Flag persons shall conform to the requirements set forth in the MN MUTCD. All costs incurred to provide such flag persons shall be **incidental** for each type of Traffic Control pay item.

(I) Flagging will not be allowed on the mainline expressway freeway portion of the various trunk highways of this State Project.

(J) The Contractor shall provide two-way fully functional radios for flag persons.

Except as otherwise authorized by the Engineer, the maximum length of the flagging operation shall be no more than 1.6 km [**1 mile**].

The Contractor shall coordinate the flagging operations in a manner which causes as little delay to the traveling public as possible, and **at no time shall the delay exceed four (4) minutes**. In the event that the Contractor is unable to meet the maximum delay requirements, operations shall shut down until such time a new traffic control plan is developed which does meet the maximum delay requirement.

If hauling operations create hazards for the traveling public, the Contractor will be required to provide additional flaggers, as directed by the Engineer. All costs incurred to provide the additional flaggers shall be **incidental** for each type of Traffic Control pay item.

(K) A Portable Changeable Message sign will be provided in advance of each temporary lane closure to communicate real time information.

(PCMS) Type C Trailer Mounted Message Signs will be permitted and shall be on the qualified products list for portable changeable message signs as found at: <http://www.dot.state.mn.us/products/temporarytrafficcontrol/tccelectronicquipment.html>. It is imperative that the Contractor continually operate each PCMS at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance. If at any time the Contractor fails to operate a Portable Changeable Message Sign at maximum legibility, as determined by the Engineer, no payment will be made for each day that the Message Sign is deemed inadequate.

Except as approved by the Engineer, the message sign shall be stored off the shoulder when not in use. In the event the Engineer allows the message board to remain on the shoulder the message sign shall be delineated according to Layout 4 (Partial Shoulder Closure) in the field manual, as determined by the Engineer.

All costs incurred to provide Portable Changeable Message Signs shall be incidental for each type of Traffic Control pay item.

S-14.8 GENERAL REQUIREMENTS:

(A) All portable sign assemblies shall be perpendicular to the ground. No traffic control device (signs, channelizing devices, arrowboards, etc.) shall be weighted so they become hazardous to motorists and workers. The approved ballast system for devices mounted on temporary portable supports is sandbags, unless it is designed, crash tested, and approved for the specific device. During freezing conditions, the sand for bags shall be mixed with a de-icer to prevent the sand from freezing. The sandbags shall be placed and maintained at the base of the traffic control device to the satisfaction of the Engineer.

When signs will remain in the same location for more than 30 consecutive days the signs shall be post mounted. This would not include portable signs which are set up and taken down at the beginning and end of each work shift. The signs must be post mounted according to the Typical Temporary Sign Framing and Installation Detail Sheet found in the Plan or in these Special Provisions.

(B) When signs are installed, they shall be mounted on posts driven into the ground at the proper height and lateral offset as detailed in the MN MUTCD. **When signs are removed, the sign posts and stub posts shall also be removed from the Right of Way within two (2) weeks or the Contractor shall be subject to a daily charge assessed at a rate of \$100.00 per day for each day or portion thereof with which the Engineer determines that the Contractor has not complied.**

(C) The Contractor shall be required to cover or remove all traffic control devices which may be inconsistent with traffic patterns during all traffic switches. See Maintenance and Staging of Traffic Control.

(D) The Contractor shall provide, at his own expense, protective devices necessary to protect traffic from excavations, drop-offs, falling objects, splatter or other hazards that may exist during construction.

(E) Equipment will not be allowed to suspend over traffic.

(F) The Contractor will not be permitted to park vehicles or construction equipment so as to obstruct any traffic control device. The parking of workers' private vehicles will not be allowed within the Project limits unless so approved by the Engineer.

Note 1 of Layout 2 of the field manual is hereby deleted. The Contractor will not be allowed to load or unload material or equipment on the shoulders of the roadway without a full shoulder closure using appropriate signs, barricades and channelizing devices as directed by the Engineer.

(G) The Contractor will not be allowed to store materials or equipment within 10 m [**30 feet**] of through traffic unless approved by the Engineer. If materials or equipment must be stored within 10 m [**30 feet**] of through traffic, the Contractor shall provide Type B channelizers, barricades or barriers, placed near the object to warn and protect traffic.

(H) All personnel working within the road Right-of-Way who are exposed to either traffic or to construction equipment shall wear reflectorized high-visibility safety apparel.

High-visibility safety apparel means personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and at a minimum meets performance Class 2 requirements of the ANSI/ISEA 107 – 2004 publication entitled “American National Standard for High-Visibility Safety Apparel and Headwear”.

Additional Requirements: ANSI/ISEA 107-2004 Class 3 Requirements (Class 2 Vest with Class E Long Pants)

- Flag Persons – In addition to an ANSI Class 2 hat, vest, shirt, or jacket, flaggers shall wear high visibility Class E long pants.
- Nighttime and Low Light Conditions – All workers working at night or in low light conditions shall wear high visibility Class E long pants in addition to an ANSI Class 2 vest, shirt, or jacket.

All high visibility apparel must be worn in the manner for which it is intended to be worn. All apparel worn on the torso must be closed in the front to provide contiguous 360 degree visibility. If a worker's high-visibility apparel becomes faded, worn, torn, dirty, or defaced, reducing the conspicuity of the apparel, the apparel shall be removed from service and replaced with new apparel.

The Contractor will be subject to a non-compliant charge for failure to adhere to the clothing requirements as listed above. Non-compliance charges, for each incident, will be **assessed at a rate of \$500.00 per incident** that the Engineer determines that the Contractor has not complied.

(I) When work will be performed between the official hours of sunset and sunrise, all appropriate practices for night work will apply.

The Contractor shall provide sufficient numbers of light plants to adequately illuminate the work area as determined by the Engineer. All costs incurred to provide such light plants shall be **incidental** for each type of Traffic Control pay item.

All Contractor's personnel, except operators who will remain in their vehicles at all times, shall wear reflectively striped (approximately 10 m [**33 feet**] of striping), highly visible, short sleeved one or two piece coveralls (color and striping pattern to be determined by the District Traffic Engineer), at all times while working on the Project. These coveralls shall be considered an incidental expense for which no direct compensation will be made. Any Contractor's employee found on the Project not wearing the prescribed reflective coveralls will be immediately ordered off the Project by the Engineer.

The Contractor shall provide a sufficient amount of 50 mm [**2 inch**] wide highly reflective vehicle marking tape to be applied to Contractor vehicles and equipment, as directed by the Engineer, and as provided by the manufacturer's instructions. This tape shall be considered an incidental expense for which no direct compensation will be made and shall be on the qualified products list for conspicuity vehicle sign sheeting as found at: <http://www.dot.state.mn.us/trafficeng/qpl/Signing.pdf>. Vehicle examples to be marked with tape are Contractor trucks, lifts, cranes, loaders and other equipment normally found in the lane closure.

(J) All in place signs and delineators mounted on less than three posts (not including back bracing) and which interfere with the Contractor's normal operation, shall be relocated outside of the work area by the Contractor at the direction of the Engineer. Any signs that are removed and may be reused are to be stored in such a manner as to protect the sign from scratching, fading, or other harmful affects until said signs are reinstalled or delivered to MnDOT. All signs mounted on three or more posts requiring relocation will be relocated by State forces. The Contractor shall notify the Engineer seven (7) Working Days prior to the required relocation work. Signs mounted on three or more posts that must be removed but not relocated shall be removed by the Contractor. Upon completion of work at each sign location, or at the direction of the Engineer, the signs shall be replaced as near to their original locations as possible or to a location designated by the Engineer. Signs and structures damaged by the Contractor shall be replaced by him at his own expense. Regulatory signs, not otherwise covered by this Contract, may only be removed or replaced or relocated by MnDOT personnel.

(K) **Truck Mounted Attenuators (TMA'S)**

If the Contractor establishes a mobile lane closure on a high speed roadway, any vehicle operating totally or partially in a traffic lane shall be equipped with a truck mounted attenuator that meets the requirements of NCHRP 350. The mobile lane closure shall meet the requirements described in the appropriate Field Manual layout. All costs incurred to providing the mobile lane closure and TMA's shall be **incidental** for each type of Traffic Control pay item.

If the Contractor establishes a lane closure on a high-speed roadway, a vehicle equipped with a truck mounted attenuator that meets the requirements of NCHRP 350 shall be placed in the closed lane next to traffic prior to the active work site, as directed by the Engineer. The lane closure shall meet the requirements described in the appropriate Field Manual layout.

(L) All temporary rigid signs shall be fabricated with an approved retroreflective sheeting material of the appropriate color, and be listed on the Qualified Product Listing (QPL) for either “Sheeting for Rigid Signs” or “High Performance Sheeting for Rigid Signs”. Signs remaining in place that still apply during temporary operations need no change in sign sheeting.

To visually identify approved retroreflective sign sheeting on temporary rigid signs in the field signs shall have an easily identifiable marking on the face. This marking verifies that the sign sheeting is Approved for Rigid Sign Use as found on the QPL. Although still required to meet sheeting standards, temporary rigid signs 4 square feet and under in size and all barricades and route markers will be exempt from this marking. The appropriate marking shall be used for each type of the approved sheeting types. Refer to the instructions for the marking of temporary signs which may be found on the APL or directly at the following link:
<http://www.dot.state.mn.us/products/signing/common/typelabel.pdf>.

The retroreflective sheeting types and qualified products used for temporary signs and barricades can be found at: <http://www.dot.state.mn.us/products/signing/sheeting.html> .

(M) In temporary traffic control zones only, a 12” x 18” black on white “Keep Right” sign, may be used in lieu of the sizes stated in the Standard Signs Manual.

S-14.9 MAINTENANCE AND STAGING OF TRAFFIC CONTROL

(A) The Contractor shall maintain, at all times, the existing traffic movements at all intersections. This requirement does not apply to the bottom of ramps where the ramps are closed per the Contract specifications.

(B) Pedestrian traffic shall be maintained and guided through the Project at all times as per Chapter 6 of the MN MUTCD.

(C) The Contractor may ban parking within the construction limits with the concurrence of the appropriate roadway jurisdictional authority. All necessary signing is the responsibility of the Contractor and shall be installed, as directed by the Engineer, 24 hours prior to the parking ban. The Contractor shall remove that signing as soon as the work, or that part of the work, in the area has been completed.

(D) The Contractor shall notify the appropriate roadway jurisdictional authority and obtain their written concurrence at least 24 hours prior to posting any parking ban.

(E) Except as otherwise authorized by the Engineer, the Contractor shall maintain a minimum of two km [**1.25 mile**] between temporary lane closures.

(F) The Contractor, at the Contractor’s own expense, shall keep the Right-of-Way fence closed up, except during work hours, by means of the in place fence, newly constructed fence, temporary fence or a combination thereof.

(G) All signs installed on roads open to traffic that are not consistent with traffic operations shall be covered as directed by the Engineer. The cover should be a plate of solid material covering the entire legend or all of that part of the legend that is inappropriate. This cover shall be bolted to the sign and shall use a minimum of 3 mm [**1/8 inch**] plastic washers between the sign face and the cover. See Figures 8.2A, 8.2B and 8.3C of the Traffic Engineering Manual for details.

(H) No access to or from any public road will be permitted for the Contractor's equipment, material deliveries, the hauling of excavated materials of any kind, or employees' private vehicles, except at in place public road intersections, or at locations and in such manner as approved by the Engineer.

(I) The Contractor shall provide, on all two lane two directional roadways at each temporary lane closure work site, a minimum of two flagger personnel with two way operational radios to control traffic and all necessary advance signing as directed by the Engineer.

(J) The Contractor shall provide four (4) G20-1 "ROAD WORK NEXT ____ MILES" signs and four (4) G20-2A "END ROAD WORK" signs to be placed, as directed by the Engineer, on the day before he begins operations on the road at each noise wall site. These signs will be placed at the end(s) of the Project. All costs incurred to provide signs shall be **incidental** for each type of Traffic Control pay item.

(K) The Contractor, on the day before he begins operations, shall also furnish, install, and maintain two (2) "ROAD WORK AHEAD" signs in advance of the construction limits on each of the intersecting roads and streets as directed by the Engineer. The signs shall conform to the standards shown in the MN MUTCD. **No direct compensation** will be made to the Contractor for furnishing and erecting these signs. The signs shall remain the property of the Contractor.

(L) Street identification signage shall be maintained at all times. Where the only existing signs are small city or county signs located at the intersection, street names and address numbers shall be maintained by temporary installations as required by the Engineer. This is necessary to maintain the 911 emergency system.

(M) Mail boxes shall be maintained at all times. Mail box temporary installation may be required by the Engineer. All necessary mail box work shall be considered an **incidental** expense for which no direct compensation will be made.

(N) The Contractor shall maintain, at all times, the existing movements at all locations, both public and private, along the Project corridor.

S-14.10 ADDITIONAL TRAFFIC CONTROL DEVICES

In addition to the traffic control devices shown on the Traffic Control Layouts, and/or Field Manual, the Engineer may require more traffic control as traffic conditions may warrant. These items are not intended for temporary lane closures.

NOTE: These provisions will apply ONLY when the Plan contains Item(s) for 2012.601 (Traffic Control Type __) and/or if "Traffic Control Layouts" are included in the Plan or attached to this Proposal.

(A) General Requirements:

The Contractor shall furnish the additional traffic control devices as ordered by the Engineer.

The devices shall be installed and maintained in a functional and/or legible condition, at all times, to the satisfaction of the Engineer.

(B) Measurement:

Flashers, barricades, reflectorized drums, portable changeable message signs, 1220 x 1220 mm [**48 x 48 inch**] signs, and flashing arrow boards will be measured by the number of individual units of each type multiplied by the number of Calendar Days each unit is in service.

Standard signs of each type, other than 1220 x 1220 mm [**48 x 48 inch**] signs will be measured by the face area of signs furnished multiplied by the number of Calendar Days each square meter [**square foot**] of sign is in service.

Special construction signs will be measured by the face area thereof furnished and installed as specified.

Flag Persons and Police Officers will be measured by the length of time each is in service on the job. Police Officers shall be equipped with a car at all times on the job and the car shall be incidental in the payment for the Police Officer.

(C) Payment:

Payment for additional traffic control devices of each type, at the appropriate pre-determined Unit Day price set forth below, shall be compensation in full for all costs of furnishing, installing, maintaining, and subsequently removing and disposing of the device.

Payment for standard signs of each type, other than 1220 x 1220 mm [**48 x 48 inch**] signs, will be made at the appropriate pre-determined Square Meter/Day [**Square Foot/Day**] price which shall be payment in full for all costs of furnishing, installing, maintaining and subsequently removing and disposing of the signs.

The pre-determined Square Meter [**Square Foot**] price for "Construction Signs - Special" shall be payment in full to furnish, install, maintain and remove such signs. All materials required to furnish and install these signs will remain the property of the Contractor.

Payment for Flag Persons and Police Officers will be by the Unit Hour for each hour or portion thereof that each is in service on the Project.

Payment for all additional traffic control devices, as ordered by the Engineer, will be made in accordance with the following schedule:

ADDITIONAL TRAFFIC CONTROL DEVICES

Item No.	Item	Unit	Predetermined Price
2563.610	Flag Person	Hour	*
2563.610	Police Officer	Hour	**
2563.613	Type I Barricade w/Steady Burn Light	Unit Day	\$1.05
2563.613	Type III Barricade	Unit Day	2.75
2563.613	Direction Indicator Barricade	Unit Day	1.25
2563.613	Reflectorized Plastic Safety Drum	Unit Day	0.85
2563.613	Reflectorized Plastic Safety Drum w/Down Arrow	Unit Day	0.95
2563.613	Weighted Traffic Channelizer	Unit Day	0.40
2563.613	Flasher Type A (Low Intensity)	Unit Day	0.50
2563.613	Flasher Type B (High Intensity)	Unit Day	1.75
2563.613	Flasher Type C (Steady Burn)	Unit Day	0.90
2563.613	1220 x 1220 mm [48 x 48 inch] Standard Sign	Unit Day	1.75
2563.613	1220 x 1220 mm [48 x 48 inch] Standard Sign w/Support	Unit Day	2.20
2563.613***	Portable Changeable Message Sign	Unit Day	225.00
2563.613****	Flashing Arrow Board (one shift)	Unit Day	33.00
2563.613****	Flashing Arrow Board (24 hour day)	Unit Day	45.00
2563.617*****	Standard Signs	m ² /Day	1.08
2563.617*****	Standard Signs	SQ.FT./Day	0.10
2563.617*****	Standard Signs w/support	m ² /Day	1.72
2563.617*****	Standard Signs w/support	SQ.FT./Day	0.16
2563.604	Construction Signs - Special	m ²	270.00
2563.618	Construction Signs - Special	SQ.FT.	25.00

* Shall be paid at the Contract Flagger Classification Total Rate, which is the Basic Rate plus the Fringe Rate.

** Shall be paid at the invoice price plus 10%

*** (PCMS) Type C Trailer Mounted Message Signs will be permitted. It is imperative that the Contractor continually operate each PCMS at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance. If at any time the Contractor fails to operate a Portable Changeable Message Sign at maximum legibility, as determined by the Engineer, no payment will be made for each day that the Message Sign is deemed inadequate.

**** It is imperative that the Contractor continually operate each Flashing Arrow Board at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance. If at any time the Contractor fails to operate the Flashing Arrow Board at maximum legibility, as determined by the Engineer, no payment will be made for each day that the Flashing Arrow Board is deemed inadequate.

***** Other than 1220 X 1220 mm [**48 X 48 inch**] Signs, with or without support.

NOTE: These predetermined unit prices apply only if not listed as separate bid items.

Barricades, drums and signs by the Unit Day shall be paid for up to 90 days per device. After 90 days, payment per Unit Day will continue at a reduced price of 40% of the Unit price.

S-15 **(1505) COOPERATION BY CONTRACTORS**

The provisions of MnDOT 1505 are supplemented as follows:

S-15.1 The Contractor shall coordinate his/her work including lane closure requests and cooperate with the holders of any and all separate contracts and/or Maintenance projects in the vicinity of this Project, both present and future, and their forces in a manner consistent with the provisions of MnDOT 1505.

S-15.2 The Contractor shall coordinate his/her work and cooperate with the holders of separate contracts, both present and future, and their forces in a manner consistent with the provisions of MnDOT 1505.

S-16 **(1506) SUPERVISION BY CONTRACTOR**

The provisions of MnDOT 1506 are supplemented as follows:

At the Preconstruction Conference the Contractor shall designate in writing who the competent superintendent and competent individual (if different) will be for this Project. These persons can only be changed throughout the duration of the Project by submission of written authorization to the Engineer by the Contractor. The submittal of these persons shall be done before any work is performed on this Project.

The Contractor shall furnish names, addresses, and phone numbers of at least three (3) individuals responsible for all aspects of maintenance on the Project. At least one (1) of these individuals shall be "on call" 24 hours per day, seven days per week. Each designated individual will carry a cell phone with the number supplied to the Project Engineer. The individual "on call" upon receiving notification of any deficiency shall dispatch people, materials, and equipment to correct the deficiency. The required information shall be submitted to the Engineer at the Pre-construction Conference.

The Contractor will be subject to an hourly charge for failure to comply with the requirements of MnDOT 1506. Non-Compliance charges, for each incident, will be **assessed at a rate of \$100 per hour**, for each hour or portion thereof, during which the Engineer determines that the Contractor has not complied. No charge will be made if the deficiency is corrected within one (1) hour of notification.

An incident of Non-Compliance will be defined as the receipt of a written work order by the Contractor with instructions to correct a deficiency.

S-17 **(1507) UTILITY PROPERTY AND SERVICE**

Construction operations in the proximity of utility properties shall be performed in accordance with the provisions of MnDOT 1507, except as modified below:

S-17.1 The provisions of MnDOT 1507.1 B are hereby deleted and the following substituted therefore:

B Gopher State One Call
The Contractor shall:

- (1) Mark the proposed excavation in accordance with the Minnesota State Statute 216D color code before contacting "Gopher State One Call." The Contractor shall mark proposed excavation area with white paint and white flags or in lieu of white flags, white stakes may be used. The Contractor must adhere to all requirements of Gopher State One Call in addition to the following:

The white markings must delineate the **actual excavation area** where the locating of underground facilities is required. All flags and stakes shall display the name, and phone number of the Contractor. All areas of proposed excavation shall be considered "practical" for the use of white markings, pursuant to Minnesota Statutes §216D.05 (2).

- (2) Call "Gopher State One Call" at least 48 hours (excluding Saturdays, Sundays, and holidays) before starting excavation operations.
- (3) The Contractor shall acquire a Positive Response confirmation from MnDOT for all proposed excavations when the Gopher State One Call has indicated MnDOT utilities may be affected. The Contractor may call MnDOT Electrical Services Section (ESS) Dispatch Locating to confirm the status of Utility infrastructure owned by MnDOT. MnDOT Electrical Services Section (ESS) Dispatch Locating can be contacted at the following phone numbers; (651) 366 -5750 or (651) 366-5751. The Contractor shall be responsible for all damage to MnDOT owned Utility infrastructure if a Positive Response confirmation has not been acquired from MnDOT. The Contractor is required to comply with the provisions of Minnesota Statutes chapter 216D when performing Excavation as defined in Minnesota Statutes §216D.01 (subdivision 5), and will be responsible for damages to facilities in accordance with Minnesota Statutes §216D.06.

S-17.2 If the Contractor is negligent in adhering to MnDOT 1507.1 B, he will be subject to a daily charge assessed at a rate of **\$500.00** per excavation area per day for each day or any portion thereof with which the Engineer determines that the Contractor has not complied.

S-17.3 All utilities that relate to this Project are classified as "Level D," unless the Plans specifically state otherwise. This utility quality level was determined according to the guidelines of CI/ASCE 38-02, entitled "Standard Guidelines for the Collection and depiction of existing subsurface utility data."

S-17.4 By bidding on this Contract, the bidder agrees that it shall use the Plan to identify the location of MnDOT drainage facilities as satisfying the requirements of Minnesota Statutes Ch. 216D and Minnesota Rules 7560.0250 with respect to MnDOT's storm water drainage facilities.

S-17.5 The following utility owners have existing facilities in the area of construction. These utilities will not be affected by work under this Contract. The utilities listed below are for informational purposes only.

MnDOT

See <http://www.dot.state.mn.us/utility> for utility operators contact list.

S-17.6 The Contractor of State Project S.P. 8825-466 shall perform on behalf of the utility owner and for the utility owner the "Adjust Action" utility work for those utilities identified to be owned by the Minnesota Department of Transportation. The Contractor of State Project S.P. 8825-466 shall keep the Minnesota Department of Transportation said utilities fully functional and operational at all times. The "Adjust Action" utility work shall be considered an **incidental** expense for which no direct compensation will be made.

S-17.7 The State's Contractor shall coordinate his/her work and cooperate with the foregoing utility owners and their forces in a manner consistent with the provisions of MnDOT 1507 and the applicable provisions of MnDOT 1505.

S-18 (1513) RESTRICTIONS ON MOVEMENT AND STORAGE OF HEAVY LOADS AND EQUIPMENT

The Contractor shall haul Materials and move and store equipment in accordance with the Highway Traffic Regulation Act and applicable provisions of Minnesota Rules when using public Roads or completed Structures, base courses, and pavements within the Project that are open to traffic and becoming a part of the permanent improvement.

The Contractor shall comply with legal load restrictions and with special restrictions required by the Contract when hauling or storing Materials and moving or storing equipment on Structures, completed Subgrades, base courses, and pavements within the Project, under construction or completed but not yet open to traffic.

The Contractor shall complete and place a cab card in each vehicle used for hauling bituminous mixture, aggregate, batch concrete, and grading material (including borrow and excess) before starting work. This cab card shall identify the truck or tractor and trailer by Minnesota or prorated license number and shall contain the tare, maximum allowable legal gross mass, supporting information, and the signature of the owner. The Contractor shall make the card available to the Engineer upon request. The Contract Unit Prices include Contractor-related costs in providing, verifying, and spot checking the cab card information, including weighing empty and loaded trucks on certified commercial scales.

The Contractor shall not operate equipment mounted on crawler tracks or steel-tired wheels on or across concrete or bituminous surfaces unless otherwise approved by the Engineer. The Contract requirements may impose special restrictions on speed, load distribution, surface protection, and other precautions.

When construction operations require crossing an existing pavement, Bridges, or completed portions of the Pavement Structure with otherwise prohibited equipment or loads, the Contractor shall use Department-approved methods of load distribution or bridging at no additional cost to the Department.

The Contractor will not be relieved of liability for damages resulting from the operation and movement of construction equipment because of the issuance of a special permit, or by adherence to any other restrictions imposed.

Unless otherwise required by the Contract or approved by the Engineer, the Contractor shall temporarily store or park construction Materials and equipment on a Bridge deck during Bridge construction in accordance with the limits of this section, established to reflect typical design live loads. The Contractor shall store Materials and equipment limited as follows:

- (1) No stockpiles weighing greater than 65,000 lb per 1,000 ft² [31,702 kg per 100 m²],
- (2) No individual stockpiles of Materials (including pallets of products, reinforcing bar bundles, and aggregate piles) weighing greater than 25,000 lb per 100 ft² [12,200 kg per 10 m²],
- (3) No single vehicle or equipment exceeding 80,000 lb [36,300 kg], and

- (4) No combination of more than 200,000 lb [90,700 kg] of vehicles, Materials, and other equipment per span with lengths greater than 40 ft [12.2 m].

If loading exceeds the above defined limits, the Contractor shall submit the proposed loads and structural analysis of the deck and beams certified by a Professional Engineer to the Bridge Engineer for the Bridge Engineer’s review within a minimum of 7 calendar days before placement of loads.

S-19 **(1514) MAINTENANCE DURING CONSTRUCTION**

The provisions of MnDOT 1514 are supplemented with the following:

In addition to the Contractor’s requirements for sweeping as required under MnDOT 2051 (Maintenance and Restoration of Haul Roads), the Engineer may require additional sweeping of roads adjacent to the construction site to provide safe conditions for the traveling public, environmental reasons, local regulatory requirements or as otherwise directed by the Engineer.

Payment for additional sweeping ordered by the Engineer will be made as specified below. (This price represents a shared cost.)

Pick Up Broom W/Operator.....	\$55.00 per hour
Self Propelled Pavement Broom W/Operator	\$30.00 per hour

S-20 **(1517) CLAIMS FOR COMPENSATION ADJUSTMENT**

The provisions of MnDOT 1517 are hereby supplemented with the following:

S-20.1 **NOTICE OF CLAIM:**

At the time the Contractor gives written notice of the claim, the Contractor and the Department shall immediately begin to keep and maintain complete and specific records to the extent possible. The records shall consist of, but are not limited to, cost and schedule records concerning the details of the perceived claim.

Unless otherwise agreed to in writing, the Contractor shall continue with and carry on the work and progress during the pendency of any claim, dispute, decision or determination by the Engineer, and any arbitration proceedings.

S-20.2 **SUBMISSION OF CLAIMS:**

The Contractor shall submit the claim to the Engineer no later than 60 Calendar Days after receiving written notice from the Engineer that direct damages (money or time due) resulting from the claim has occurred in the opinion of the Engineer. If, in the opinion of the Contractor, the direct damages have not fully occurred, the Contractor shall provide written justification detailing why the direct damages have not fully occurred. This written justification shall be submitted to the Engineer no later than 30 Calendar Days from receiving the notice from the Engineer. If proper justification is not given as required within the 30 Calendar Day requirement or the claim is not submitted to the Engineer within 60 Calendar Days after receiving notice from the Engineer that the direct damages have occurred, the Contractor waives all claims for additional compensation in connection with the work already performed.

The contents of the claim shall be in accordance with MnDOT 1517 and shall also include all scheduling documentation related to the claim

The Engineer shall have access to the Contractors records involved in the claim and, when so requested, shall furnish the Engineer copies of claim documentation.

The Contractor shall promptly furnish any clarification and additional information or data requested in writing by the Engineer.

All claims shall be submitted through the Contractor. Submission of claims directly from subcontractors shall constitute a waiver of that portion of the claim.

S-20.3 DECISION ON CLAIMS:

The Department intends to resolve claims at the lowest possible administrative level. Upon receipt of the claim, the Engineer will make a written decision in relation to any claim presented by the Contractor within the following time frames:

- (A) For an adjustment in compensation, or other contractual dispute between the parties where the amount in controversy is \$75,000.00 or less, 60 Calendar Days from the receipt of the Contractor's claim;
- (B) For an adjustment in compensation, or other contractual dispute between the parties where the amount in controversy is more than \$75,000.00, 90 Calendar Days from the receipt of the Contractor's claim.

Unless the Contractor and the Engineer otherwise stipulate in writing to a later time, if the Engineer does not make a decision or determination within these time frames, the claim shall be deemed denied.

When the Contract has established a dispute resolution process, that moves the dispute through various levels of both organizations, this process shall also be completed within the above time period.

S-20.4 MEDIATION

Notwithstanding the formal claims procedures set forth in this Special Provision, the parties may at any time enter into nonbinding mediation by mutual agreement. If the parties agree to mediation, then the time requirements set forth above in Section S-20.3 (A) and (B) are suspended until the mediation is completed. The time and place for mediation, as well as selection of the mediator, shall be established by mutual agreement. The mediator's costs shall be divided equally between the Contractor and the Department. This payment shall be accomplished by the Contractor paying in full all costs and fees for the mediator and then submit the bill to the Engineer for 50 percent reimbursement. Either party may terminate mediation at any time.

S-20.5 RIGHTS OF ARBITRATION:

The decision of the Engineer in relation to the Contractor's claim shall be deemed final unless the Contractor commences a legal action within the time prescribed by law or unless the Contractor invokes arbitration as prescribed hereafter in these Special Provisions. Nothing herein contained shall be so construed as to preclude the Contractor from commencing a legal action in relation to claims for a single issue in excess of \$75,000.00 but the Contractor's sole legal remedy in relation to claims of \$75,000.00 or less shall be arbitration as prescribed hereafter in these Special Provisions. If the claim amount is in excess of \$75,000, the Contractor and MnDOT may mutually agree to arbitration.

If the Contractor seeks to arbitrate a claim of \$75,000 or less, the Contractor shall submit a written request for arbitration to the Department's Claims Engineer in MnDOT's Central Office within 30 Calendar Days after the Contractor's receipt of the Engineer's decision. Failure to reasonably conform with this time requirement waives the right to arbitration. The scope of the arbitration proceeding shall be limited to the claim(s) that the Contractor previously presented to the Engineer for decision

S-20.6 ARBITRATION OF CLAIMS AND DISPUTES:

- (A) For purposes of this section, a claim for adjustment in compensation shall mean an aggregate of operative facts which give rise to the rights which the Contractor seeks to enforce. Stated another way, a claim is the event, transaction, or set of facts that give rise to a claim for compensation. Any Contractor having a claim in excess of \$75,000.00 may waive or abandon the dollar amount in excess of \$75,000.00 so as to bring the claim within the scope of this section. However, the arbitration award shall not exceed \$75,000.00. Various damages claimed by the

Contractor for a single claim may not be divided into separate proceedings to create claims within the \$75,000.00 limit.

- (B) More than one separate claim may be presented at each arbitration hearing if agreed to by the Department, the Contractor, and the Arbitrator.
- (C) Selection of the Arbitrator/ Optional Use of the American Arbitration Association:
- a. Selection of the arbitrator shall be conducted by one representative of the Department and one representative of the Contractor. A single person shall represent the prime and all subcontractors involved in the claim. Separate representation for subcontractors during the selection of the arbitrator is not allowed.
 - b. The parties may mutually agree to have the arbitration process administered by the American Arbitration Association (“AAA”).
 - c. The arbitration shall be administered by a single arbitrator.
 - d. The parties shall select an arbitrator by mutual agreement, or, if the parties have agreed to use the AAA to administer the process, shall select an arbitrator from a list of arbitrators provided by the Association in accordance with the Association’s procedures.
- (D) Arbitration Proceedings and Decision
- a. All arbitration of claims shall be conducted in Minneapolis, Minnesota, or another mutually agreed upon location.
 - b. Regardless of whether the parties have agreed to use AAA to administer the process, the arbitration proceeding shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect and in accordance with the requirements below. The arbitration procedures set-forth in this Special Provision shall take precedence over conflicting American Arbitration Association requirements.
 - c. If mutually agreed to by both parties, the arbitration proceeding shall follow the Fast Track rules of the American Arbitration Association.
 - d. Unless otherwise agreed to by the parties, the arbitration hearing shall be bifurcated into a liability phase and, if needed, a valuation phase. No evidence or testimony regarding the value of the claim shall be presented during the liability phase.
 - e. The Contractor shall first present evidence to support the claim. The Department will then present evidence supporting its defense. Witnesses shall submit to questions or examinations. The arbitrator has the discretion to vary this procedure and shall afford a full and equal opportunity to all parties to be heard. Exhibits, when offered by either party, may be received in evidence by the arbitrator.
 - f. The arbitrator shall entertain motions, including motions that dispose of all or part of a claim or that may expedite the proceedings.
 - g. There shall be no ex parte communication between any party and an arbitrator.
 - h. When satisfied that the presentation of the parties is complete, the arbitrator shall declare the liability phase of the arbitration hearing closed. The arbitrator shall then determine whether MnDOT is liable.
 - i. If the Department is found to be liable, the arbitration proceeding shall continue before the same arbitrator to resolve all damages issues. The proceedings for this portion of the arbitration shall follow the procedures outlined in Section S-20.6(D)e of this Special Provision.

- j. Within three Calendar Days after the close of the damages portion of the hearing, each party shall submit to the arbitrator their last best offers. The arbitrator shall be limited to awarding only one of the two figures submitted. In no event shall a claim award in arbitration exceed \$75,000.
- k. The decision or award of the arbitrator shall be:
 - i. In writing showing the basis for the decision or award. The arbitrator shall use the Contract and Minnesota law, or, in the absence of Minnesota law on the issue(s), other persuasive authority, as the basis for the decision.
 - ii. Final and binding on both the Department and the Contractor.

The award shall have the same finality as is accorded awards under the Uniform Arbitration Act, Minnesota Statutes Chapter 572.

(E) Arbitration Costs

- a. Each party to the arbitration shall bear its own costs and fees assessed by the American Arbitration Association or independent arbitrator which shall be divided equally between the parties to the arbitration. This payment will be accomplished by the Contractor paying in full all costs and fees for the arbitrator and then submit the bill to the Engineer for 50 percent reimbursement.
- b. Each party shall bear its own preparation costs.

S-20.7 PRE-AWARD INTEREST AND PRE-JUDGMENT INTEREST

Pre-award interest will commence on the date that a request for arbitration is made, in writing to the Engineer, following the submission of a claim that complies with the requirements of MnDOT 1517. Pre-judgment interest will commence on the date that an action is commenced following the submission of a claim that complies with the requirements of MnDOT 1517. Pursuant to Minnesota Statutes §549.09 this Contract expressly provides dates for the commencement of interest that may vary from the dates provided in statute.

S-21 (1602) NATURAL MATERIAL SOURCES

The provisions of MnDOT 1602 are supplemented with the following:

S-21.1 The expansion of any existing natural material sources, or the creation of new Natural Material Sources, will be subject to the requirements of the Farmland Protection Act of 1981 (FPPA or the ACT). Coordination to comply with FPPA shall be the responsibility of the Contractor. Contact the Natural Resources Conservation Service (NRCS) office for the county in which the source is located for further information.

S-22 (1606) STORAGE OF MATERIALS

The provisions of MnDOT 1606 are hereby supplemented with the following:

S-22.1 The Contractor is hereby advised that the only materials that will be allowed to be stockpiled within Project Limits are materials which will be incorporated into the Project and then only in the quantity needed. Materials cannot be stockpiled which are for use on other projects. This specification applies to manufactured and natural materials (including material stockpiled for crushing).

S-22.2 If the Contractor elects to crush excavated materials within the Project Limits, the quantity of crushed material will be limited to only the quantity required for this Project. The Contractor will not be allowed to crush materials other than those found within the Project Limits, unless approved in writing by the Engineer. The Contractor will not be allowed to remove crushed material from the Project Limits, unless approved in writing by the Engineer.

S-23 **(1701) LAWS TO BE OBSERVED (DATA PRACTICES)**

The provisions of MnDOT 1701 are supplemented with the following:

S-23.1 Bidders are advised that all data created, collected, received, maintained, or disseminated by the Contractor and any subcontractors in performing the work contained in this Contract are subject to the requirements of MN Statute Chapter 13, the Minnesota Government Data Practices Act (MGDPA). The Contractor shall comply with the requirements of the MGDPA in the same manner as the Department. The Contractor does not have a duty to provide access to public data to the public if the public data are available from the Department, except as required by the terms of the Contract.

S-24 **(1701) LAWS TO BE OBSERVED (WET LANDS)**

The provisions of MnDOT 1701 are modified and/or supplemented with the following :

S-24.1 If the Contractor operations involve the excavation and/or disposal of material off MnDOT Right of Way, the Contractor is advised of the following:

MN Statutes Sections 103G.2212 and 103G.241 stipulate that an agent or employee of another may not:

- 1) drain, excavate, or fill a wetland, wholly or partially; or
- 2) construct, reconstruct, remove, or make any change in any reservoir, dam, or the course, current, or cross-section of any public water;

unless the agent or employee has obtained a signed statement from the property owner stating that any permit or wetland replacement plan required for the work has been obtained, or that a permit or replacement plan is not required; **AND** this statement is mailed to the appropriate office with jurisdiction over the wetland or public water prior to initiating the work.

The "Landowner Statement and Contractor Responsibility For Work in Wetlands or Public Waters" can be found at: http://www.bwsr.state.mn.us/wetlands/forms/Contractor_Responsibility.doc . The Contractor shall provide the Engineer with a copy of the completed "Landowner Statement and Contractor Responsibility for Work in Wetlands or Public Waters" for the excavation and/or disposal site prior to initiating the work.

S-25 **(1701) LAWS TO BE OBSERVED (CULTURAL RESOURCES – STATE FUNDED)**

The provisions of MnDOT 1701 are modified and/or supplemented with the following:

S-25.1 It will be MnDOT's responsibility to obtain a **Cultural Resources Unit (CRU) determination of effect letter** for MnDOT owned or leased Natural Material Resources if listed in the Construction Plan. It will also be MnDOT's responsibility to obtain a CRU determination for all Right of Way needed for this Project.

S-25.2 If the Contractor operations require the excavation and disposal of material off MnDOT Right of Way, the Contractor is advised of the following:

MnDOT CRU will review the proposed excavation/disposal area to determine the effect to historic properties. The MnDOT CRU will obtain Minnesota Historical Society (MHS) comment under the Minnesota Historic Sites Act only when there is a potential to affect historic properties listed in the State or National Registers of Historic Places or to consult with MHS and the Office of the State Archaeologist (OSA) under the Field Archaeology Act of Minnesota when the project has the potential to affect known or suspected archaeological sites or the Minnesota Private Cemeteries Act when human burials are an issue. The Contractor must request a review from the CRU, at Contractor's expense, before any material taken from the area can be used on State Projects or any disposal can be made in the area. Typically, this review may take 15

calendar days after receipt of the request. However, in some cases the review period may be longer. Any time delays are the responsibility of the Contractor and are not a basis for claim for damages due to delay of Contract.

- (A) Required reviews may be obtained by contacting MnDOT's CRU at:

Culturalresources.dot@state.mn.us

**Cultural Resources Unit
Office of Environmental Stewardship
Minnesota Department of Transportation
395 John Ireland Blvd.
Mail Stop 620
St. Paul, Minnesota 55155**

And a request must be filled out with the following form:

<http://www.dot.state.mn.us/culturalresources/process/PitForm.doc>

(B) The Contractor shall give the Project Engineer a copy of the MnDOT CRU determination of effect letter. If this letter states that there is **no potential to affect properties listed in the State or National Registers of Historic Places or to affect known or suspected archaeological sites**, no further action is required by the Contractor.

HOWEVER

(C) When the MnDOT CRU requires a Cultural Resources Field Survey, The Contractor shall secure professional services to a conduct a survey and prepare a report for the MnDOT CRU.

1. A list of qualified acceptable Archaeologists and/or Historians will be furnished to the Contractor by the MnDOT CRU, upon request.
2. When a cultural resources field survey is required, Contract time will be adjusted in accordance with MnDOT 1806 for any suspension of work required to comply with these requirements. No monetary claims due to delays or loss of time for off-site construction activity will be allowed.
3. The cost of the cultural resources field survey and report are the Contractor's responsibility.

The Contractor will **NOT** be given permission to use the proposed material resources site, disposal site, or embankment/excavation site until such time as the MnDOT CRU grants its permission.

S-26 (1706) EMPLOYEE HEALTH AND WELFARE

The provisions of MnDOT 1706 are supplemented with the following:

S-26.1 All construction operations shall be conducted in compliance with applicable laws, regulations and industry standards as described in MnDOT 1706. The Contractor shall be considered to be **fully responsible** for the development, implementation and enforcement of all safety requirements on the Project, notwithstanding any actions MnDOT may take to help ensure compliance with those requirements.

S-26.2 The Contractor shall submit a written safety program to the Engineer at the pre-construction conference addressing safety issues for all Project activities. This program shall contain name(s) of person(s) responsible for all safety requirements and this Contractor's Designee(s) shall be available at all times that work is being performed. The Contractor's designee(s) shall be responsible for correcting violations on the Project as observed by the Engineer or his/her representative.

S-26.3 The Contractor shall not use any motor vehicle equipment on this Project having an obstructed view to the rear unless:

- (A) The vehicle has a reverse signal alarm which is audible above the surrounding noise level; or
- (B) The vehicle is backed up only when an observer signals that it is safe to do so.

S-26.4 **A \$500.00 monetary deduction (per incident) will be assessed by MnDOT for violations of safety standards and requirements that have the potential for loss of life and/or limb of Project personnel or the public.** The areas of special concern include, but are not limited to excavation stability protection, fall protection, protection from overhead hazards, vehicle backup protection (see S-26.3 above), confined space safety, blasting operations, and personal safety devices.

S-26.5 None of the monetary deductions listed above shall be considered by the Contractor as allowance of noncompliance incidents of these safety requirements on this Project.

S-27 (1710) TRAFFIC CONTROL DEVICES

All traffic control devices and methods shall conform to the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), Minnesota Standard Signs Manual, the Traffic Engineering Manual, and the following:

In accordance with the MN MUTCD all sign supports shall be crashworthy. Signs installed on barricades, barricade sign combinations, and all other portable supports shall be crashworthy. This includes all new and used Category I and Category II devices.

The Contractor shall provide the Project Engineer a Letter of Compliance stating that all of the Contractors Category I and II Devices are NCHRP 350 approved as of July 1, 2006. The Letter of Compliance must also include approved drawings of the different signs and devices and shall be provided to the Project Engineer at the Pre-construction meeting.

S-28 (1712) PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

Bidders are advised that they may review any environmental documents and permits concerning this Project prior to bidding. The Department's contact persons in the District are as follows:

Environmental Documents:

Brigid Gombold
1500 Co Rd B, Roseville MN 55113
651-234-7674

Permits:

Bryce Fossand
1500 Co Rd B, Roseville MN 55113
651-234-7529

S-29 (1714) RESPONSIBILITY FOR DAMAGE CLAIMS; INSURANCE

The provisions of MnDOT 1714 are hereby deleted and replaced with the following:

The Contractor shall indemnify, defend, and save harmless the Department, its officers, and its employees from all suits, actions, and claims of any character brought because of injuries or damages received or sustained by any person, persons, or property on account of the operations of the Contractor; or

on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of the Contractor; or because of any claims arising or amounts recovered from infringements of patent, trademark, or copyright; or because of any claims arising or amounts recovered under the Workers' Compensation Act, or under any other law, ordinance, order, or decree.

The Department may retain for its use money that is due the Contractor under this or any other contract with the Department, as the Department deems necessary to protect its interests with respect to any suits, actions, or claims arising on account of the Contractor's operations or in consequence of any act, neglect, omission, or misconduct of the Contractor; or, in case no money is due, the Contractor's Sureties may be held liable until those suits, actions, or claims have been settled and suitable evidence to that effect has been furnished to the Department.

The Contractor shall identify a contact person for damage complaints from the public, and shall maintain a log of such complaints and any action taken by the Contractor. This log shall be available to the Engineer at his request.

A Workers' Compensation Insurance

Contractor shall provide workers' compensation insurance for all employees and shall require any subcontractors to provide workers' compensation insurance in accordance with the statutory requirements of the State of MN and must include:

- a. Part 2, Employers' Liability including Stop Gap Liability for monopolistic states.
Minimum limits:
 - \$100,000 – Bodily Injury by disease per employee
 - \$500,000 – Bodily Injury by disease aggregate
 - \$100,000 – Bodily Injury by accident
- b. Coverage C: All States Coverage
- c. If applicable, USL&H, Maritime, Voluntary and Foreign Coverage
- d. Waiver of subrogation in favor of the Department

If Contractor is self-insured for its obligation under the Workers' Compensation Statutes in the jurisdiction where the project is located, a Certification of the Authority to Self-Insure such obligations shall be provided.

The Contractor must require Subcontractors to file evidence of insurance with the Contractor

B Commercial General Liability Insurance

The Contractor shall maintain insurance to cover liability from operations under the Contract, whether such operations are by the Contractor, subcontractor or by anyone directly or indirectly employed under the Contract.

Minimum Limits of Liability

- \$2,000,000 – **Per** Occurrence
- \$2,000,000 – **Annual** Aggregate
- \$2,000,000 - **Annual** Aggregate applying to Products and Completed Operations
- \$50,000 – Fire **Damage**
- \$5,000 – Medical **Expense** (any one person per occurrence)

Coverages

- Premises and Operations Bodily Injury and Property Damage
- Personal and Advertising Injury
- Products and Completed Operations Liability
- Contractual Liability as provided in ISO form CG 00 01 12 04 or its equivalent
- Pollution exclusion with standard exception as per ISO Commercial General Liability Coverage Form – CG 00 01 12 04 or equivalent

- Explosion, Collapse and Underground (XCU) perils
- Broad Form PD
- Independent Contractors – Let or Sublet work
- Waiver of subrogation in favor of the Department
- Department named as an Additional Insured, by endorsement, ISO Forms CG 2010 and CG 20 37 or their equivalent for claims arising out of the Contractor's negligence or the negligence of those for whom the Contractor is responsible.

C Automobile Liability Insurance

Contractor shall maintain insurance to cover liability arising out of the operations, use, or maintenance of all owned, non-owned, and hired automobiles.

Coverages

- Owned Automobiles
- Non-owned Automobiles
- Hired Automobiles
- Waiver of subrogation in favor of the Department

Minimum Limit of Liability

\$2,000,000 – Per Occurrence Combined Single Limit for Bodily Injury and Property Damage

Umbrella or Excess Liability Insurance

An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Contract.

D Additional Conditions

Contractors' policy(ies) shall be primary and non-contributory insurance to any other valid and collectible insurance available to the Department with respect to any claim arising out of the Contract.

Evidence of subcontractor insurance shall be filed with the Contractor.

The Contractor is responsible for payment of Contract related insurance premiums and deductibles.

Insurance companies must have an AM Best rating of A- (minus) and a Financial Size Category of VII or better, and be authorized to do business in the State of Minnesota.

Certificates of Insurance acceptable to the Department shall be submitted prior to commencement of work under the Contract. Such Certificates and the required insurance policies shall contain a provision that coverage afforded under these policies shall not be cancelled without at least thirty (30) days advance written notice to the Department.

E Notice to the Contractor

The failure of the Department to obtain Certificate(s) of Insurance for the policies or renewals thereof or failure of the insurance company to notify the State of the cancellation of policies required under this Contract shall not constitute a waiver by the Department to the Contractor to provide such insurance.

The Department reserves the right to terminate the Contract in accordance with 1808 if the Contractor is not in compliance with the insurance requirements and the Department retains all rights to pursue any legal remedies against the Contractor. In the event of a claims dispute, all insurance policies must be open to inspection by the Department, and copies of policies must be submitted to the Department upon written request of the Engineer.

S-30 **(1717) AIR, LAND AND WATER POLLUTION**

The provisions of MnDOT 1717 are supplemented and/or modified with the following:

S-30.1 **DISCOVERY OF CONTAMINATED MATERIALS AND REGULATED WASTES**

If during the course of the Project, the Contractor unexpectedly encounters any of the following conditions indicating the possible presence of contaminated soil, contaminated water, or regulated waste, the Contractor shall immediately stop work in the vicinity, notify the Engineer, and request suspension of work in the vicinity of the discovery area, in accordance with MnDOT 1803.4.

A documented inspection and evaluation will be conducted prior to the resumption of work. The Contractor shall not resume work in the suspected area without authorization by the Engineer.

(A) Indicators of contaminated soil, ground water or surface water include, but are not limited to the following:

- (1) Odor including gasoline, diesel, creosote (odor of railroad ties), mothballs, or other chemical odor.
- (2) Soil stained green or black (but not because of organic content), or with a dark, oily appearance, or any unusual soil color or texture.
- (3) A rainbow color (sheen) on surface water or soil.

(B) Indicators of regulated wastes include, but are not limited to the following:

- (1) Cans, bottles, glass, scrap metal, wood (indicators of solid waste and a possible dump)
- (2) Concrete and asphalt rubble (indicators of demolition waste).
- (3) Roofing materials, shingles, siding, vermiculite, floor tiles, transite or any fibrous material (indicators of demolition waste that could contain asbestos, lead or other chemicals).
- (4) Culverts or other pipes with tar-like coating, insulation or transite (indicators of asbestos).
- (5) Ash (ash from burning of regulated materials may contain lead, asbestos or other chemicals).
- (6) Sandblast residue (could contain lead).
- (7) Treated wood including, but not limited to products referred to as green treat, brown treat and creosote (treated wood disposal is regulated).
- (8) Chemical containers such as storage tanks, drums, filters and other containers (possible sources of chemical contaminants).
- (9) Old basements with intact floor tiles or insulation (could contain asbestos), sumps (could contain chemical waste), waste traps (could contain oily wastes) and cesspools (could contain chemical or oily wastes).

S-30.2 MnDOT 1717.2 A2 is hereby deleted and replaced with the following:

A2 During Construction

The Contractor shall implement the Project's Storm Water Pollution Prevention Plan. The Contractor shall schedule and install temporary and permanent sediment and erosion control measures, construct ponds and drainage facilities, finish earth work operations, place topsoil, establish turf, and conduct other Contract work in a timely manner to minimize erosion and sedimentation.

All exposed soil areas with continuous positive slopes that are within 60 m (**200 feet**) of a public water shall have temporary or permanent erosion protection within 24 hours after the construction activity in that portion of the site has temporarily or permanently ceased and connection is established to the public water. All other positive slopes to constructed surface waters, such as permanent storm water treatment ponds, curb and gutter systems, storm sewer inlets, temporary or permanent drainage ditches, or other storm water conveyance systems, shall have temporary erosion protection or permanent cover for the exposed soil areas as soon as practicable but no later than 14 days after construction activity has

temporarily or permanently ceased in that area. For those drainage areas that have a discharge point within 1 mile and flows to an impaired or Special Waters shall have temporary erosion protection or permanent cover for the exposed soil areas as soon as practicable but no later than 7 days after construction activity has temporarily or permanently ceased in that area. Impaired and Special Waters are defined as those listed and referenced in the NPDES Permit.

Positive slopes adjacent to public waters and wetlands will be stabilized at the close of each day when weather forecasts for rain that evening, and/or overnight including weekends. Once work is completed it will be stabilized permanently as soon as practical but no later than seven days.

Exposed soil areas do not include; stockpiles or surcharge areas of sand, gravel, aggregate, concrete, bituminous, or road bed and surfacing material. A perimeter sediment barrier may be necessary to minimize loss when these are within the 60 m (**200 feet**) of existing surface waters or the property edge.

The bottom of temporary or permanent drainage ditches or swales constructed to drain water from a construction site must be stabilized with erosion control measures for the last 60 m (**200 feet**), or more when conditions warrant, from the property edge or from the point of discharge to any existing surface water. Stabilization shall be completed within 24 hours after the construction activity in that portion of the ditch has temporarily or permanently ceased. Ditch stabilization will continue concurrently with construction activities but no later than 14 days after construction activities have permanently or temporarily ceased. Any, culvert pipe or storm sewer pipe that is within the cumulative distance is not part of this distance. Ditch checks may be provided where necessary to slow water flow and capture sediment.

Temporary or permanent ditches used as treatment systems will not need to be stabilized but must provide the proper Best Management Practices for the treatment system.

Pipe outlets shall be provided with temporary or permanent energy dissipation within 24 hours of connecting the pipe to any constructed or existing surface waters.

The Contractor shall limit the surface area of erodible soil that can be exposed to possible erosion at any one time when the permanent erosion control features are not completed and operative.

All liquid and solid wastes generated by concrete washout operations must be contained and not have the opportunity to come in contact with the surface waters or ground water. This includes the ditches, slopes to ditches, curb and gutter/stormsewer systems, and ponds. Areas where there are sandy soils, karsts, and high ground water the washout facility must have an impermeable liner. Liquid and solid wastes must be disposed of properly. A concrete washout sign must be installed adjacent to each washout facility to notify personnel.

S-30.3 MnDOT 1717.2E is hereby deleted and replaced with the following:

E Site Plans

The Engineer may require the Contractor to submit a site plan, in writing, detailing proposed erosion control and sediment control measures and a schedule indicating starting and completion times for construction operations working in water bodies and/or in direct proximity to waters of the state.

Contractor shall not start work in the affected areas until the schedule and site plan have been accepted by the Engineer and all materials and equipment for the activity are on site.

S-31 **(1802) TRAINING FOR CONSTRUCTION TRUCK OPERATORS**

Operators of construction trucks hauling construction materials such as borrow, aggregate base, asphalt mixtures and concrete paving mixtures are encouraged to become certified as a Level I Construction Truck Operators (CTO).

This one-day session taught in various MnDOT Districts features classroom and hands-on educational experiences. The objective of the CTO Training is to make the driver aware of the Federal and State requirements and regulations regarding the construction truck and driver, and the safe driving techniques that will result in the safe operation of the construction truck. Presenters include Minnesota State Patrol, Minnesota Department of Transportation and the Minnesota Safety Center.

This training is co-sponsored by the Minnesota State Patrol, the Minnesota Highway Safety Center, the Minnesota Trucking Association, the Minnesota Asphalt Pavement Association and the Minnesota Department of Transportation.

Additional information about this certification program can be obtained by contacting any of the following:

	PHONE #	FAX #
Minnesota Asphalt Pavement Association: E-mail: info@mnapa.org	651-636-4666	651-636-4790
Minnesota Department of Transportation: E-mail: motorcarrier@state.mn.us Website: http://www.dot.state.mn.us/cvo/index.html	Toll Free: 1-888-472-3389 651-405-6060	651-405-6082
Minnesota Highway Safety Center: E-mail: tjsakry@stcloudstate.edu Website: http://mnsafetycenter.org	Toll Free: 1-888-234-1294 320-255-4732	320-255-3942
Minnesota State Patrol: Website: http://www.dps.state.mn.us/patrol/comveh/index.htm	Toll Free: 1-888-472-3389 651-405-6171	651-405-6082
Minnesota Trucking Association: E-mail: john@mntruck.org Website: http://www.mntruck.org	651-646-7351	651-641-8995

S-32 **(1803) PROSECUTION OF WORK**

The provisions of MnDOT 1803 are supplemented and/or modified with the following:

S-32.1 Because of the impact of this Project on the driving public, every effort must be made by the Contractor to minimize the disruption to traffic. Since the public’s perception of the Project efficiency is based on the amount of work activity observed in a given area, the Contractor shall schedule his/her work in a manner that will provide a maximum of work effort in as short a work area as practical. Lane closures will not be placed or extended into areas where work will not be actively pursued.

S-32.2 No temporary lane restrictions will be permitted between 12:00 P.M. noon on the day preceding and 9:00 A.M. on the day following any consecutive combination of a Saturday, Sunday and legal holiday (all lanes open to traffic, no lane closures).

S-32.3 All the S.P. 8825-466 Contract work within the limits of each Task Order of the Project shall be pursued continuously and completed within one continuous working day time period without any breaks in the sequence of working days.

S-32.4 The provisions of MnDOT 1803 are modified to the extent that the initial "Progress Schedule", and all subsequent updated progress schedules, shall be in the form of a critical path diagram. This critical path diagram progress schedule shall be sufficiently detailed to accurately reflect the complexity of this Project to the satisfaction of the Engineer. Monthly updates will be required showing progress to date and necessary schedule adjustments to comply with intermediate and final completion dates. Monthly updates will also show the original accepted schedule in grey scale above the progress to date bar for each task so changes to the original schedule can be tracked.

S-33 (1806) DETERMINATION AND EXTENSION OF CONTRACT TIME

The Contract Time will be determined in accordance with the provisions of MnDOT 1806 and the following:

S-33.1 Construction operations shall be started on July 15, 2013 or within eight (8) Calendar Days after the date of Notice of Contract Approval or as indicated in the first Task Order, whichever is later. The anticipated date of the first Task Order is July 15, 2013. Construction operations shall not commence prior to Contract Approval. In addition, no Task Order construction operations shall commence prior to the Task Order being approved and authorized.

S-33.2 This Contract shall be effective until September 30, 2015 and based on the Department's evaluation of the Contractor's performance and available funding. No Task Orders will be issued after July 15, 2015.

S-33.3 Working days will be assigned on Task Orders based on the following table. Work included on a Task Order, but not listed below will not be afforded time individually, **but have been accounted for in the items listed below**. The Engineer will negotiate time for any negotiated extra work, on the critical path, on each task order.

Item Number	Description	Time
2104.503	Remove Wood Noise Wall (occurring concurrently with Item 2422.618)	750 Sq Ft/Working Day
2422.618	Wood Noise Barrier	750 Sq Ft/Working Day

Working Day charges for 2422.618 Wood Noise Barrier will begin the start date of the Task Order.

S-33.4 No work which will restrict or interfere with traffic shall be performed between 12:00 noon on the day preceding and 9:00 A.M. on the day following any consecutive combination of a Saturday, Sunday, and legal holiday without written permission from the Engineer.

(A) If the Contractor chooses not to work at all on the day preceding the holiday period, no working day charges will be assessed.

(B) If the Contractor chooses to work prior to 12:00 noon on the day preceding the holiday period or if the Contractor obtains written permission to work after 12:00 noon on the day preceding the holiday period, working day charges will be assessed only for the actual hours worked.

S-33.5 The provisions of MnDOT 1806.1C(3)(c) are modified to the extent that the term "(c)" during the inclusive period from November 15 to April 15" is deleted. A similar phrase set forth in the second paragraph of MnDOT 1807.2 is also deleted.

S-34 **(1807) FAILURE TO COMPLETE THE WORK ON TIME**

The provisions of MnDOT 1807 are supplemented as follows:

S-34.1 The Department will deduct from any monies due or coming due to the Contractor an amount equal to \$2,000.00 per Calendar Day for failure to complete all the work specified in an executed Task Order that remains uncompleted after the expiration of Contract Time identified for that Task Order.

S-34.2 The following phrase from MnDOT 1807.2 (Waiver of Liquidated Damages) is hereby deleted.

“...nor will damages accrue during the period from November 15 to April 15, inclusive.”

S-34.3 The Department may reduce the daily liquidated damages to **\$500.00** per Calendar Day, upon written request from the Contractor and with the approval of the Engineer, when the only remaining items are maintenance work or final cleanup.

S-34.4 For informational purposes only, bidders are advised that in addition to the requirements of MnDOT 1807, other Sections of these Special Provisions, as shown below, contain requirements for assessment of monetary deductions to this Contract:

1404	MAINTENANCE OF TRAFFIC AND (2012) TRAFFIC CONTROL
1506	SUPERVISION BY CONTRACTOR
1507	UTILITY PROPERTY AND SERVICE
1706	EMPLOYEE HEALTH AND WELFARE

S-34.5 The liquidated damages set forth in MnDOT 1807 and any monetary deductions as set forth above may apply equally, separately, and may be assessed concurrently.

S-35 **(1903) COMPENSATION FOR INCREASED OR DECREASED QUANTITIES**

MnDOT 1903 is deleted and replaced with the following:

The Department will pay the Contractor for the actual quantities of Material used as specified in the Task Order and accepted by the Engineer. If the accepted quantities of Work vary from the quantities in the Contract, the Contractor shall accept, as payment in full, payment based on the Bid Item Unit Prices. Except as specified in MnDOT 1402.2, “Significant Changes in the Character of Work,” and MnDOT 1402.2, “Differing Site Conditions,” the Department will not consider increased expenses, loss of expected reimbursement, or loss of anticipated profits or overhead suffered or claimed by the Contractor. Nor will the Department consider loss of expected reimbursements from unbalanced allocation of overhead among the Pay Items or from any other cause.

S-36 **(1904) EXTRA AND FORCE ACCOUNT WORK**

The provisions of MnDOT 1904 are supplemented and/or modified with the following:

S-36.1 The Contractor is required to submit force account work itemized statements of costs in accordance with MnDOT 1904 to the Engineer on MnDOT form TP-21659 (Summary of Daily Force Account). Copies of this form can be obtained from the Engineer.

S-36.2 The following sentence shall be added to the second paragraph of MnDOT 1904:

"Under no circumstance will the negotiated unit price for Extra Work which is performed by a subcontractor include a Prime Contractor allowance which exceeds that provided for in 1904(4), Paragraph 3."

S-37 (1910) FUEL ESCALATION CLAUSE

The provisions of MnDOT 1910 are hereby deleted.

S-37.1 COST ESCALATION

To compensate for the potential of this Contract to extend over several construction seasons the Department will adjust the Unit Prices of all items on the Bid Schedule by 2% once per year on the anniversary date of the letting of this Contract. Items not listed on the Bid Schedule will not be adjusted. Cost Escalation will apply to task orders with regard to actual date work performed.

S-38 (2021) MOBILIZATION

The provisions of MnDOT 2021 are hereby deleted and replaced with the following:

2021.1 DESCRIPTION

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the Project site; for the establishment of all Contractor's offices and buildings or other facilities necessary for work on the Project. Mobilization may include bonding, permit, and demobilization costs. When the proposal does not have a lump sum item for Mobilization, all costs incurred by the Contractor for Mobilization shall be incidental to other work.

2021.2 BLANK

2021.3 BLANK

2021.4 BLANK

2021.5 BASIS OF PAYMENT

Mobilization at the Lump Sum amount for all Task Orders will be eliminated. Rather, the Contractor shall incorporate any special up-front required costs into one of the regular pay items identified in the Task Order Item List located in these Special Provisions. Those costs are to cover any and all items identified in the description section above.

S-39 (2104) REMOVING PAVEMENT AND MISCELLANEOUS STRUCTURES

Abandoned structures and other obstructions shall be removed from the Right of Way and disposed of in accordance with the provisions of MnDOT 2104, except as modified below:

S-39.1 Measurement and payment for the removal and disposal of materials will be made only for those Items of removal work specifically included for payment as such in the Proposal and as listed in the Plans. The removal of any unforeseen obstruction requiring in the opinion of the Engineer equipment or handling substantially different from that employed in excavation operations, will be paid for as Extra Work as provided in MnDOT 1403.

S-39.2 All removals shall be disposed of by the Contractor outside the Right of Way in accordance with MnDOT 2104.3C3 to the satisfaction of the Engineer.

S-40 **(2104) REMOVE AND HAUL TREATED WOOD**

If the Contractor is required to dispose of treated wood, the provisions of MnDOT 2104 are supplemented with the following:

S-40.1 The Contractor can elect to reuse the treated wood for its original intended purpose. The Contractor shall furnish a completed Transfer of Ownership form to the Engineer prior to removing any treated wood from the Project limits. The Transfer of Ownership form is available at the following website: <http://www.dot.state.mn.us/environment/buildingbridge/disposal.html>.

S-40.2 If the Contractor cannot or elects not to re-use the treated wood for its original intended purpose, but must be disposed, the following shall apply:

(A) The Contractor shall dispose of all waste treated wood in a MPCA permitted Minnesota solid waste or industrial landfill. The Contractor shall not dispose of waste treated wood in a demolition landfill. Within 30 days after the treated wood is transported to the landfill, the Contractor shall provide the Engineer with shipping manifests, scale tickets and invoices. Shipping manifests shall include, but are not limited to, the following information: specify treated wood as the type of waste, quantity of wood, date of hauling and disposal, and location of disposal.

(B) The Contractor has the option to chip creosote treated wood on site instead of hauling it to a landfill. After the wood is chipped on site, the Contractor shall transport the chipped wood off site to a MPCA permitted incinerator that is permitted to burn creosote treated wood. Call 651.366.3630 for list of incinerators permitted to burn creosoted treated wood. This applies to creosote treated wood only.

S-40.3 Measurement and payment for the removal and disposal of treated wood will be made only when specifically included for payment as such in the Proposal and as listed in the Plans. All other removal and disposal of treated wood operations shall be incidental work and no direct compensation will be made therefore.

S-41 **(2104) REMOVE PLYWOOD AND WOOD PLANKING**

This work shall be performed in accordance with the provisions of MnDOT 2104 and the following for all Project Task Orders:

S-41.1 All noise wall posts and the bottom board are to remain in place. All in place plywood and planking are to be removed from the noise wall.

S-41.2 All removals shall be disposed of by the Contractor outside the Right of Way in accordance with MnDOT 2104.3c3 to the satisfaction of the Engineer.

S-41.3 Measurement will be made by the total square foot of noise wall as specified. Payment will be made under Item 2104.503 (Remove Noise Wall) at the Contract bid price per square foot, which shall be compensation in full for all costs relative thereto.

S-42 **(2130) APPLICATION OF WATER**

The provisions of MnDOT 2130 are modified as follows:

S-42.1 The third paragraph of MnDOT 2130.5 is hereby deleted and the following substituted therefore:

Water applied by order or approval of the Engineer for dust control will be paid for at a unit price of \$5.45 per cubic meter (**\$20 per 1000 gallons**) in the absence of the Contract bid Item 2130.501.

S-43 **(2422) WOOD NOISE BARRIER**

This work shall consist of furnishing all materials for and constructing wood noise barrier walls, in accordance with the Plan details, the applicable MnDOT Standard Specifications, and the following:

S-43.1 **GENERAL**

All thickness and width dimensions of solid sawn wood for timber facing material indicated in the Plans for wood wall construction shall be construed to be nominal dimensions unless otherwise indicated in the Plans or these Special Provisions.

S-43.2 **MATERIALS**

(A) **MnDOT 3426 (Structural Timber) and 3457 (Lumber); Planking and Battens**

- 1) Except as otherwise permitted elsewhere herein, dimensional timber for planks and battens shall be any species of southern pine conforming to the requirements of MnDOT 3426 and/or 3457, free of natural and manufacturing defects that would impair the strength or prevent use of the piece in its full size for purposes of strength and utility intended, such as checks, decay, loose knots, holes, edge wane and warp.
- 2) Intermixing of wood species will not be permitted within any continuous section of wall.
- 3) Planks, which are constructed above ground shall be No. 1 Structural Grade and Better, dressed on two sides (S2S) or better, tongue and grooved worked. Planks, which are constructed partially above ground, such as those placed opposite the earth fill side of barriers, also shall meet these requirements. Planks, which are constructed below ground, such as those placed on the earth fill side (supporting) of barriers, and nailers shall be No. 2 Structural Grade and Better standard rough sawn. Battens and cap boards shall be No. 1 Structural Grade and Better, dressed on one side and two edges (S1S2E) or better.
- 4) Except as otherwise permitted elsewhere herein, all timber shall be treated with a Disodium Octaborate Tetrahydrate (DOT) and an exterior polymer based system that complies with ESR-1081 (ICC Evaluation Service Report) as described hereinafter in this specification.
- 5) Moisture content shall meet the requirements of S-43.9 (MOISTURE CONTENT) of these Special Provisions.

(B) **Structural Steel Tubing**

Structural steel shall conform to the requirements of MnDOT 3306.

Threaded rods, bolts, nuts and washers shall be galvanized in accordance with MnDOT 3392 or be electroplated in accordance with ASTM B 633, Type III, SC 4.

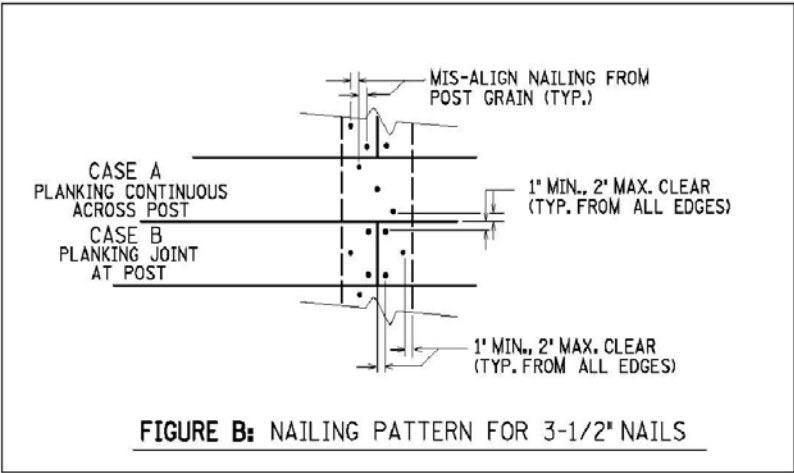
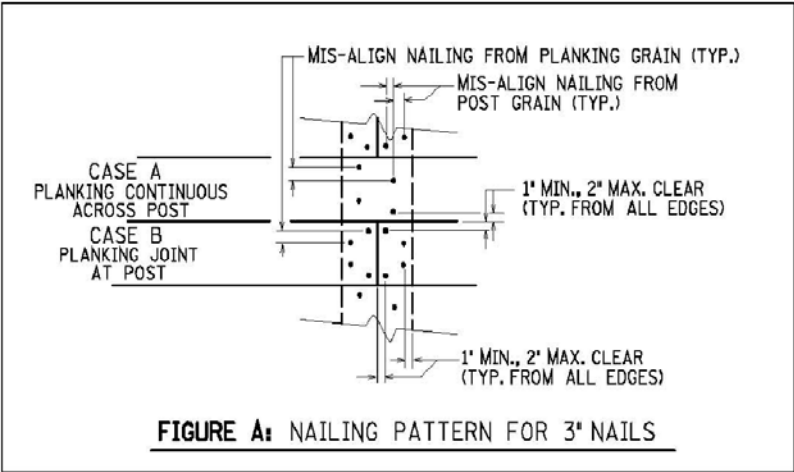
(C) **Hardware**

All hardware for noise wall shall meet the following requirements:

- 1) All battens shall be secured to planks using a No. 8, or larger, screw that is coated with a protective layer that provides full coverage and prohibits any corrosion after an exposure of 1,000 hours to ASTM B 117, "Operating Salt Spray (Fog) Apparatus" and install with a drive system that does not strip or cause damage to the head of the screw and will penetrate completely through the batten board and through $\frac{3}{4}$ of the thickness of the facing board in all applications. Stainless steel screws that meet the dimensional and drive system requirements are allowed without the performance of ASTM B 117.

- 2) The requirements as shown on Noise Wall Detail Sheets in the Plans shall be used as a reference except for the fastener pattern as detailed in S-43.2D3 and S-43.2D4 (MATERIALS; Hardware) below. All planking shall be secured to 3" X 10" plank nailer using a No. 8 or No 10 exterior grade stainless steel bugle head screw and install with a drive system that does not strip or cause damage to the head of the screw and will penetrate completely through the plank board to the depth specified in Figure A or Figure B below.
- 3) The **fastener pattern** used for **nauling planks to nailer components** shall at a minimum meet the following requirements:
- a. Four (4) nails per board connection, as shown in **Figure A** for 3 inch long nails;
or
 - b. Three (3) nails per board connection, as shown in **Figure B** for 3 ½ inch long nails.

The fasteners shall be placed a minimum of 1 inch and a maximum of 2 inches from the edges of the nailing plank.



- 4) The **fastener pattern** used for **screwing battens, cap boards and other architectural features to planks** shall utilize the following method:
- a. Two fasteners shall be applied through the batten or other feature into each plank in a staggered pattern as shown on the Noise Wall Detail Sheet, Front Elevation View.

The fasteners shall be placed a minimum of 1" (one inch) and a maximum of 2" (two inches) from the edges of the batten board.

- 5) When power tools and building equipment are used to drive ring shank nails into the planking, a minimum gauge diameter of 0.131 inch hot-dipped galvanized full-head round ring shank nails shall be used. The number of nails required in each pattern shall be increased by an extra 50% (fifty percent) if using 3 ½ inch long full head nails to an increase of 100% (one hundred percent) if using 3" long full head nails. Clipped head nails shall **not** be allowed.
- 6) All hardware for wood noise barrier walls shall meet the requirements of MnDOT 3391 (Fasteners) and MnDOT 3392 (Galvanized Hardware) unless explicitly allowed by these Special Provisions.

(D) Stain and Paint

Exposed concrete and wood surfaces shall be stained and finished on all exposed surfaces in accordance with the requirements described hereinafter in this specification. Steel surfaces shall be painted and finished on all exposed surfaces in accordance with the requirements described hereinafter in this specification.

(E) Caulk

Caulk shall be a neutral-cure, one-component, high performance, medium modulus silicone joint sealant conforming to ASTM C920-86, Type S, Grade NS designed for general purpose caulking and glazing applications. Provide in a clear color. Apply after staining.

S-43.3 DEFINITIONS

(A) **BORATE Treated Wood** – Non-arsenic, non-heavy metal, and non-chromium pressure treated wood produced in accordance with applicable procedures and specifications, and the appropriate International Code Council Evaluation Service (ICC-ES) Standards and/or applicable American Wood Preservers' Association (AWPA) Standards for exterior usage [UC3A (Use Category 3A for exterior construction, above ground, coated & rapid water runoff) and UC3B (Use Category 3B for exterior construction, above ground, uncoated and poor water runoff) approval]. The Disodium Octaborate Tetrahydrate ($\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$) solution is an inorganic borate. The exterior usage is permitted through the use of an additional polymer treatment that inhibits the leaching of the borate from the wood.

(B) **Specialty Subcontractor** – Party responsible for BORATE handling, transporting, storing, installing, protecting, sampling, and patching (damaged BORATE). This may be the Contractor if Contractor is able to demonstrate to the Engineer its expertise in this area.

(C) **Manufacturer** – The ICC Accredited party or parties (as listed in ESR-1081) responsible for producing the BORATE treated wood and/or the preservative.

(D) **Retention** – amount of preservative level present in the BORATE wood measured in kg/m^3 [lbs/ft^3].

(E) **Water resistant** – Quality of the wood to repel moisture, providing long-term protection against decay, rot, and weathering.

(F) **Supplier** – If no Manufacturer (as defined above) exists for the Project, then the Supplier shall be defined as the facility responsible for furnishing the ICC Accredited borate-treated wood planks to the Specialty Subcontractor (as defined above).

S-43.4 REQUIREMENTS

(A) Materials Ordering

BORATE treated wood materials shall not be ordered until the Engineer has approved the proposed materials. If the Contractor orders materials without the Engineer's written approval, the Contractor assumes all liability.

(B) Preparation - DELETED.

(C) Excavation - DELETED.

(D) Branding

Each BORATE treated wood timber shall be individually permanently branded on the face of each timber, not the edges or ends with the following two (2) separate brands:

BRAND #1

- 1) Name of wood treating company;
- 2) Treatment plant city and state;
- 3) "Borate";
- 4) Preservative retention level;
- 5) "Approved for exterior use".

BRAND #2

- 1) Name of wood treating company;
- 2) ICC Accredited Facility;
- 3) ESR-1081 *.
* = ICC Evaluation Service Report 1081

(E) BORATE preservative – A borate with a binding system used to minimize leaching of the borate. The preservative shall provide protection to the wood against decay, rot, and insect attack, and act as a fungicide.

- 1) The preservative shall be applied at a rate by the manufacturer which will ensure that the measured retention level at the construction jobsite will be a minimum of 0.50 pounds per cubic foot for all applications where the timber will be installed, and as noted in 2) below;
- 2) Only Disodium Octaborate Tetrahydrate products approved for exposed conditions shall be allowed.
- 3) The polymer shall be applied at a rate of thirty (30) gallons per one-thousand (1000) board feet as stated in the quality manual as approved by the ICC in accordance with ESR-1081. Verification of this rate of usage shall be monitored by an independent third-party inspection agency and the resulting report will be presented to MnDOT upon request.

S-43.5 SUBMITTALS AND CERTIFICATION

All Borate Treated Wood must be sampled, tested and inspected by the Manufacturer and/or Supplier and approved by the Department prior to being incorporated permanently in the work. Unless otherwise specified, no direct compensation will be made for the costs of sampling and testing, it being understood that the costs are included in the Contract bid prices for treated wood products.

This inspection shall be performed in accordance with the following:

(A) A Letter of Compliance from the Manufacturer and/or Supplier certifying that the material furnished meets the Specification requirements and identifying the Specification number or reference and the Project number to which the material is shipped shall be furnished to the Engineer. The report also shall include the sampling procedures and results of all quality control tests, including a description of test methods used.

(B) A Letter of Compliance shall include Treatment and Inventory Audit Reports in accordance with the Quality Control Manual, Wood Treatment Products, Inc. (See Section S-43.6). This letter shall certify that all aspects of the Wood Treatment Products Quality Assurance Manual have been followed including both the retention of the borate in the wood and the appropriate amount of polymer as recorded by the treater upon treatment.

(C) The Department reserves the right to request additional testing and/or verification by the Manufacturer and/or Supplier at the Contractor's expense.

The Contractor is advised that he/she needs to allow enough lead time so that a Letter of Compliance can be prepared and furnished to the Engineer so as to not to interfere with the construction schedule for the completion of the wood noise barrier walls.

S-43.6 ACCEPTABLE PRESERVATIVE SOURCES

Disodium Octaborate Tetrahydrate ($\text{Na}_2\text{B}_8\text{O}_{13}\cdot 4\text{H}_2\text{O}$) is an inorganic borate and is manufactured by **Envirotech Ventures International, Inc.**, P.O. Box 712, Sandpoint, Idaho 83864, among others. It is distributed as **Envirosafe Plus™ Wood Preservative** available through Wood Treatment Products, Inc., P.O. Box 950445, Lake Mary, FL 32795-0445, and its authorized treaters, **or approved equal**. The Engineer may accept, at his or her discretion, borate preservative-treated wood from a single approved source.

S-43.7 WARRANTY

The Contractor shall warrant the installation of the BORATE treated wood against defects for a period of one hundred twenty (120) days from the date of the acceptance (See Section S-43.13) by the Engineer. (Note: This warranty is separate from any warranty (ties) that the manufacturer may provide to the Contractor on the treatment chemicals and/or the treated noise wall timbers supplied). The Contractor, or its designated representative, shall repair any defects due to improper installation that occur during the warranty period at no cost to the Department. The Contractor shall furnish the Engineer with a written warranty.

S-43.8 HANDLING AND STORAGE

BORATE Treated Wood materials shall be delivered in wrapped bundles and stored above ground, protected from weather and moisture until use. **The Contractor is reminded that due diligence and care must be exercised when moving or handling any posts or wood material from their storage area(s) on the Project. Should any damage occur to any posts or wood material being installed on the Project by the result of mishandling, the Engineer may refuse to accept the placement of any such damaged material under MnDOT 1607 and at the approval of the Engineer. Such damaged and unaccepted material shall be replaced by the Contractor at his cost.**

S-43.9 MOISTURE CONTENT

The Contractor is responsible for the following:

(A) Samples shall be tested for moisture content at the rate of one (1) sample per 186 square meters [**2000 square feet**] of installed wood material. Testing and test equipment shall meet the requirements of ASTM D4444-92 (Reapproved 2003) [Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters], in particular Field Calibration (sections 5.2, 6.2, and 6.3) and Sampling Point (location) (section 6.6.1).

(B) The specified sampling rate may be increased prior to installation at the discretion of the Engineer (i.e., to test samples after a precipitation event).

(C) At the time of installation, the Contractor shall test and ensure the moisture content in the planking wood and battens shall not exceed thirteen (13) percent maximum moisture content per volume tested. The moisture content for the battens shall not exceed fifteen (15) percent maximum moisture content per volume tested. Wood planking and battens which do not meet these requirements will be rejected. However, the rejected portion will be allowed to sun dry or be mechanically dried to meet moisture content requirements and then be placed with the approval of the Engineer in the noise wall installation. BORATE Treated Wood materials which fail to meet moisture content requirements shall be rejected by the Engineer and removed from the Project at no cost to MnDOT.

S-43.10 INSTALLER AND MATERIALS STANDARDS

(A) Submittals and testing qualifications of the installer of the BORATE Treated Wood shall comply with S-43.4 (REQUIREMENTS), and S-43.9 (MOISTURE CONTENT) of these Special Provisions. These instructions must be provided to the Engineer, and approved by the Engineer prior to the Contractor ordering materials.

(B) The Contractor shall dispose of BORATE treated wood scraps and cut-offs in a non-hazardous municipal solid waste landfill in accordance with MnDOT 2104 and local regulations. BORATE treated wood scraps shall not be burned.

S-43.11 CONSTRUCTION REQUIREMENTS

(A) Construction of wood noise barrier walls shall be accomplished in accordance with the Plan details, the applicable MnDOT Standard Specifications, these Special Provisions, or as otherwise approved by the Engineer.

BORATE Treated Wood materials that must meet definite Specification requirements shall not be incorporated in the work until all preliminary inspections and tests necessary for moisture retention and preservative levels have been completed and the material is found to comply with requirements.

(B) Vertical wood components, such as battens, shall be plumb after installation. Horizontal wood components, such as planks and cap boards, shall be level after installation.

(C) DELETED.

(D) Fastening shall be accomplished in a manner that will avoid splitting boards.

(E) Joints shall be constructed in a manner that will completely arrest the passage of light. No daylight shall be visible through the joints 120 days after completion of the wall; this shall be construed to be part of the Warranty as detailed in Section S-43.7 of these Special Provisions. The Contractor is advised to take whatever measures necessary to avoid excessive shrinkage or shifting which would cause the passage of light. Where passage of light does occur, the Contractor shall take corrective action, by applying caulking to the satisfaction of the Engineer, at his/her own expense.

(F) Planking shall be installed "groove side down" in all installations. When battens are to be joined in the construction of the wall, they shall have a 45 degree down miter joint instead of the in place 90 degree joint (to minimize water retention issues).

(G) Storage of materials within the Right of Way will be permitted only as approved by the Engineer.

(H) Debris shall be disposed of outside the Right of Way.

S-43.12 STAINING, PAINTING AND FINISHING REQUIREMENTS
SECTION DELETED.

S-43.13 "BORATE" TREATED WOOD ACCEPTANCE

The Contractor shall retain ownership and responsibility of the BORATE treated wood until the Engineer accepts it.

(A) The Engineer will accept the BORATE installation after:

- 1) All required documentation from the Contractor has been received and accepted.
- 2) Test reports verifying material properties have been received and accepted by the Engineer.

- 3) Construction of the Borate-treated noise wall is complete, including any repairs needed due to material defects or construction requirements.

S-43.14 MEASUREMENT AND PAYMENT

(A) Wood noise wall construction will be measured by the square foot of BORATE treated timber and lumber furnished and installed complete in place as specified, including quality assurance sampling and testing, architectural treatments (battens and cap feature), fire hose access holes and staining. No increase in area will be allowed for measuring the opposite side of the wall or the architectural treatments required on this surface unless specified on drawings.

(B) Payment will be made according to the following schedule:

NOTE: Only those pay items which are applicable to this Project shall apply.

<u>Item</u>	<u>Description</u>	<u>Units</u>
2422.603	Glue Laminated Rub Rail	Linear Foot
2422.618	Wood Noise Barrier.....	Square Foot

Payment shall be considered payment in full for all other costs incidental thereto.

S-44 (2571) PLANT INSTALLATION

MnDOT 2571 is hereby deleted from the MnDOT Standard Specifications and replaced with the attached Specification "2571 -- PLANT INSTALLATION AND ESTABLISHMENT" **Revised 01/23/2013.**

S-45 (2572) PROTECTION AND RESTORATION OF VEGETATION

The provisions of MnDOT 2572 are supplemented and/or modified with the following:

S-45.1 The first paragraph after MnDOT 2572.3A(5) under Protecting and Preserving, is revised to read as follows:

The Contractor shall not place temporary structure, store material, or conduct unnecessary construction activities within a distance of 8 m (**26 feet**) outside the dripline of trees designated to be preserved without approval from the Engineer.

S-45.2 The second paragraph of MnDOT 2572.3A2 Clean Root Cutting, is revised to read as follows:

The Contractor shall immediately and cleanly cut damaged and exposed roots. Trees designated for protection shall have damaged roots cut back to sound healthy tissue and shall have topsoil immediately placed over the exposed roots. The Contractor shall immediately cover root ends that are exposed by excavation activities with 150 mm (**6 inches**) of topsoil as measured outward from the cut root ends. Exposed cut oak roots shall be immediately (within 5 minutes) treated with a wound dressing material consisting of latex paint or shellac. The Contractor shall limit cutting to a minimum depth necessary for construction and shall use a vibratory plow or other approved root cutter prior to excavation.

S-45.3 The third sentence of MnDOT 2572.3A8 Destroyed or Disfigured Vegetation, is revised to read as follows:

The Engineer will assess damages of trees and landscaping at not less than the appraisal damages as determined by the current edition of the "Guide for Plant Appraisal – Council of Tree and Landscape Appraisers" published by the International Society of Arboriculture.

S-46 **(2573) STORM WATER MANAGEMENT**

The provisions of MnDOT 2573 are supplemented and/or modified with the following:

S-46.1 The Contractor shall request from Metro District Water Resources Engineer, Bryce Fossand, (651/234-7529) an updated SWPPP prior to starting each new Task Order to reflect any special or impaired water and/or environmentally sensitive areas within the new Task Order location(s).

S-46.2 The second paragraph of MnDOT 2573.3A1 Erosion Control Supervisor, is revised to read as follows:

The Erosion Control Supervisor shall be a responsible employee of the prime Contractor and/or duly authorized by the prime Contractor to represent the prime Contractor on all matters pertaining to the NPDES construction stormwater permit compliance. The Erosion Control Supervisor shall have authority over all Contractor operations which influence NPDES permit compliance including grading, excavation, bridge construction, culvert installation, utility work, clearing/grubbing, and any other operation that increases the erosion potential on the Project. In addition, the Erosion Control Supervisor shall **implement the Contractor's quality control program and other provisions in accordance with 1717.2** and be available to be on the Project within 24 hours at all times from initial disturbance to final stabilization as well as perform the following duties:

S-46.3 MnDOT 2573.3 A2, Construction of Temporary Storm Water Basins, is revised to read as follows:

Temporary storm water basins shall be constructed concurrently with the start of soil disturbing activities whenever practicable. The basins must be made fully functional and have storm water runoff from the localized watershed directed to the basins. The exposed sideslopes of the basins must be mulched and/or seeded within the time periods as set forth in 1717, or as directed by the Engineer.

S-46.4 The second paragraph of MnDOT 2573.3 A5, Vehicle Tracking Onto Paved Surfaces, is revised to read as follows:

The Contractor is responsible for insuring paved streets are clean at the end of each working day or more often as necessary to provide safety to the traveling public. Tracked sediment on paved surfaces must be removed by the Contractor within 24 hours of discovery, in accordance with 1717.2. Payment for street sweeping to provide safe conditions for the traveling public, environmental reasons or regulatory requirements shall be as provided in accordance with 1514.

S-46.5 The first sentence of MnDOT 2573.3E2 is revised to read as follows:

The bioroll shall be installed and anchored with wood stakes. The stakes shall be at a minimum nominally 25 mm x 50 mm (**1 inch x 2 inch**) and a minimum of 400 mm (**16 inches**) long with a pointed end.

S-46.6 The first paragraph of MnDOT 2573.3J Filter Log Installation, is revised to read as follows:

J **Filter Log Installation**

Filter logs shall be placed in accordance with the Plan. Straw and wood fiber filter logs shall be staked in place with wood stakes. Wood stakes shall be at a minimum 25 x 51 mm (**1 x 2 inch**) nominal size by 400 mm (**16 inches**) long. The stakes shall be driven through the back half of the log at an angle of approximately 45 degrees with the top of the stake pointing upstream. When more than one log is needed for length, the ends shall be overlapped 150 mm (**6 inches**) with both ends staked. Staking shall be every 0.3 m (**1 foot**) along the log unless precluded by paved surface or rock.

S-46.7 MnDOT 2573.5 Basis of Payment, is revised to read as follows:

Payment for storm water management and sediment control items will be compensation in full for all labor, materials, equipment, and other incidentals necessary to complete the work as specified, including the costs of maintenance and removal as required by the Contract. The Contractor will receive compensation at the appropriate Contract prices, or in the absence of a Contract bid price, according to the following unit prices, or in the absence of a Contract price and unit price, as Extra Work. In the absence of a Contract item for Erosion Control Supervisor, this work shall be considered incidental.

S-46.8 MnDOT 2573.5 E, Unit Prices, is revised to read as follows:

The Department will pay the following unit prices for temporary sediment control items in the absence of a Contract bid price:

(1) Bale Barrier.....	\$13.45/m (\$4.10 per linear foot)
(2) Silt Fence, Heavy Duty.....	\$10/m (\$3.00 per linear foot)
(3) Flotation Silt Curtain, Type: Still Water, 1.2 m (4 foot) depth.....	\$54.10/m (\$16.50 per linear foot)
(4) Sediment Trap Excavation.....	\$7.20/m ³ (\$5.50 per cubic yard)
(5) Bituminous Lined Flume	\$6.00/m ² (\$5.00 per square yard)
(6) Silt Fence, Type Machine Sliced	\$6.50/m (\$2.00 per linear foot)
(7) Sediment Removal, Backhoe.....	\$175 per hour
(8) Filter Log, Type Straw Bioroll	\$1.00/m (\$3.00/foot)
(9) Filter Log, Type Rock Log	\$16.50/m (\$5.00/foot)
(10) Flocculant Sock	\$300 each

S-47 (2575) WEED CONTROL

This work shall consist of controlling and preventing the spread of noxious and/or invasive weeds. Weeds may exist on the right-of-way of this Project and weed seed may be present as a seed bank in the existing topsoil. Perform the work in accordance with the applicable MnDOT Standard Specifications and the following:

S-47.1 The Contractor shall follow all requirements of Minnesota Statutes Chapter 18. Section 18.82 states the following:

Except as provided in section 21.74, if a person wants to transport along a public highway materials or equipment containing the propagating parts of weeds designated as noxious by the commissioner, the person must secure a written permit for transportation of the material or equipment from an inspector or county-designated employee. Inspectors or county-designated employees may issue permits to persons residing or operating within their jurisdiction. If the noxious weed propagating parts are removed from materials and equipment or devitalized before being transported, a permit is not needed.

The Minnesota Department of Agriculture (MDA) determines the current state listed Noxious Weed (NW) species. The Contractor is directed to <http://www.mda.state.mn.us/plants/badplants/noxiouslist.aspx>.

S-47.2 At the preconstruction conference, the Contractor is to submit a plan for reducing the spread of NW. The plan must include methods and sequencing of work, if mowing or herbicide spraying operations will occur and by whom. It will also describe what types of equipment and materials will be used, the protocols for cleaning the equipment. In addition, the plan will define the containment methods and the location of the receiving sites. At the start of a new Task Order, the Contractor shall update this plan if there have been any significant changes based on the new locations in the Task Order.

S-47.3 The movement and reuse of topsoil from areas infested with any designated NW or IW shall be limited to the confines of identified infested areas.

S-47.4 Weed infested areas may not be used for construction staging areas.

S-47.5 The Contractor shall take measures to minimize the spread of weed seed and other propagules from designated infested areas. Minimize the disturbance in these areas and by cleaning vehicles and equipment before moving them out of the designated weed infestation areas. Cleaning shall remove soil and vegetation debris that is visible on vehicles and equipment before moving operations. Cleaning may include scraping, sweeping, blowing or water spraying operations as appropriate for the location and conditions. Water spraying operations may require a containment system of the wash water for truck washing operations. All cleaning must be done in a manner that complies with all laws and as per MnDOT 1717 Site Plan.

S-47.6 The Contractor shall retrieve and dispose of excavated soils for foundation support of signs, guardrail, etc. These soils shall be disposed of using one of the following methods:

- Bag and dispose of weed seed infested soil in a lined landfill with a paper or electronic custody trail.
- Dispose of the infested soil a minimum of 3 feet below the finished grade within the Project limits.
- Dispose of the infested soil a minimum of 3 feet below the finished surface outside of the Project limits documentation and proof of the location and depth the material was disposed.
- Dispose of the infested soil within the designated weed infested area over the already disturbed graded area prior to topsoil placement excluding roadside ditches and water treatment areas. Followed by topsoil placement and turf establishment practices for the Project.
- Dispose of the infested soil within the designated weed infested area over established turf excluding roadside ditches and water treatment areas. The Contractor shall then be responsible for establishing vegetation in these areas.
- Dispose of the infested soil outside of the construction limits with a method approved by the MDA that will destroy the viability of the NW propagating parts.

S-47.7 No direct compensation will be made for compliance with these requirements. Any mowing or weed spraying ordered by the Engineer shall be incidental.

S-48 **(2575) CONTROLLING EROSION AND ESTABLISHING VEGETATION**

The provisions of MnDOT 2575 are hereby modified and/or supplemented with the following:

S-48.1 MnDOT 2575.3D paragraph 2 and table 2575-2 are hereby deleted and replaced with the following:

The Contractor shall sow the seed uniformly at the rate of application specified in Table 3876-5.

S-48.2 MnDOT 2575.4D is hereby deleted and replaced with the following:

D **Seed**

When a bulk rate seed mixture is specified as shown in table 3876-5, the measurement will be made on that bulk mass. When a PLS rate seed mixture is specified as shown in table 3876-5, the measurement will be made on the PLS mass.

S-48.3 MnDOT 2575.5C is hereby deleted and replaced with the following:

C Seed

When a seed mixture is specified at a bulk rate as shown in table 3876-5, the payment will be made on that bulk mass. When a seed mixture is specified at a PLS rate as shown in table 3876-5, the payment will be made on the PLS mass.

Payment for seed not meeting germination and purity or PLS requirements of 3876 shall be subject to 1503. When components are missing from the specified mixture the affected seeded areas shall be reseeded with the missing components by the Contractor at no additional cost to the Department.

S-49 (3861) PLANT STOCK

The provisions of MnDOT 3861 are supplemented and/or modified with the following:

S-49.1 The third to last paragraph of MnDOT 3861.3 Sampling and Inspection, is revised to read as follows:

During the spring planting season, coniferous plants that have candled out (put out new growth) while being stored in a holding bin may be planted, however, coniferous plants that are dug after candling out will be rejected. Coniferous trees not fully branched from bottom to top will be rejected. Only coniferous trees with buds or new growth at the terminal ends of branches shall be accepted, provided the tree meets the dimensional requirements defined in the current edition of the "Inspection and Contract Administration Manual for MnDOT Landscape Projects". Sheared or previously de-budded conifers may have enlarged trunk growth that is out of balance with a typical transplanted root system that is now too small. Therefore, previously sheared or de-budded coniferous trees will be subject to the minimum trunk caliper to root ball size relationship for deciduous trees as defined in the current edition of the "Inspection and Contract Administration Manual for MnDOT Landscape Projects". Pine trees shall have a terminal leader bud and terminal leaders shorter than 500 mm (**18 inches**) in length. A new central leader must be trained in conifers delivered with multiple or missing leaders.

S-50 (3876) SEED

The provisions of MnDOT 3876 are supplemented and/or modified with the following:

S-50.1 The second paragraph of MnDOT 3876.1 is hereby deleted and replaced with the following:

Pure live seed (PLS) is the percent of seed germination plus dormant and/or hard seed times the percent of seed purity of each species divided by 100.

S-50.2 MnDOT 3876.2A General Requirements is hereby deleted and replaced with the following:

A General Requirements

All seed lots shall conform to the latest seed law of the State (Minnesota Statutes 21.80-21.91, last revised 8/2/06), and any applicable federal regulations, including those governing labeling and weed seed tolerances. Seed lots sold or offered for sale in the state of Minnesota are subject to inspection, sampling, and testing for verification of label claims and compliance with the Minnesota Seed Law by the Department of Agriculture (M.S. 18J.04). Tolerances for germination and purity factors will be applied as established in Rules 1510.0050, 1510.0060, 1510.0070, 1510.0080, 1510.0090 and 1510.0100 to seed lots sampled and tested by official methods. For all seed used in MnDOT mixes or projects, tests for viability (including germination and TZ tests) are valid for 12 months from the test date, exclusive of the month the test was completed. Seed shall be installed while tests are still valid.

All legume seed, including native legumes, shall have been pre-inoculated with the proper bacterial culture for the species being inoculated and with the bacteria culture designed for this purpose (pre-inoculation), in the manner and within the time specified by the manufacturer.

A1 Labeling

Contractor shall supply seed that is labeled according to the labeling requirements for agricultural seed as set forth in the Minnesota Seed Law, section 21.82. The Contractor shall supply seed that also contains the following information:

- a) County of genetic origin for each native component (List at least two counties for germplasm comprising accessions from multiple counties)
- b) PLS percent for each mix component (Purity x Total Germination and Hard or Dormant Seed/100) for each mix component (**For PLS component of mix's**)
- c) Total PLS weight for the bag. The tag shall identify this as the pay item. (**For PLS component of mix's**)
- d) Total bulk weight for the bag
- e) Area covered by the amount of seed in the bag when applied at the rate specified for the mix
- f) All information pertaining to individual components in a mix is required for all components, including those that constitute less than 5% of the total mix.

Tags must not be hand written. If any of the above mentioned information is not included on the tag the material will be subject to specification 1503. When multiple bags are required to keep certain species or groups of species separate for the purpose of seeding those bags may be placed inside of a larger bag as long as each bag is labeled separately and the outer bag is labeled with the name of the mix.

Each package of seed must include a "Certified Vendor" tag that is issued by MnDOT Erosion Control unit. This will indicate that the seed has come from a MnDOT Approved Seed Vendor as described in 3876.3.

A2 Seed Cleaning

Contractor shall use seed that has been cleaned to an extent sufficient to allow its passage through appropriate seeding equipment. Seed of introduced species must be suitable for use in conventional seeders. Seed of native species must be suitable for use in native seed drills without plugging up the boxes, drop tubes, or planting units of the seed drills. Contractor shall not use seed that has been conditioned so much that it suffers reduced viability as a result.

A3 Substitutions

Alternate species or germplasm may only be used by requesting permission from the Office of Environmental Services Turf and Erosion Control Engineering Unit. Requests for permission must include written proof from three potential suppliers that the specified germplasm is not available. Approved substitutions will be named in a memo at the time they are approved. All currently approved substitutions will be posted on the Office of Environmental Services Erosion Control Unit website. Use of germplasm not listed herein will be considered unacceptable and will be subject to 1503.

A4 Requirements for seed of native species

Contractor shall supply and plant all seed in the 300 series mixes as pure live seed (PLS). This includes the cover crop, grass, sedge, and forb components. All seed in the cover crop component of mixes in the 300 series must be certified by the Minnesota Crop Improvement Association (MCIA) or the appropriate seed certifying agency in the seed's state of origin, if other than Minnesota.

All native seed used in mixes in the 300 series shall be certified by the Minnesota Crop Improvement Association (MCIA) in the Source Identified class. The genetic origin for this seed shall be within Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin.

Source Identified seed shall be accompanied by the appropriate quality mark documentation from the MCIA, in the form of a MCIA-labeled yellow tag or certification certificate. County of genetic origin

shall be clearly identified on the seed label for all native seed. Selected class and Tested class germplasm of native species listed in Table 3876-1 located on the website of the Office of Environmental Services Erosion Control unit may be used in 100 and 200 series seed mixtures.

If a specified species or germplasm is not available, substitutions will be granted for native seed in the 300 series mixes according to the following order of preference:

- 1) First preference, MCIA certified Source Identified class with a genetic origin in Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin
- 2) Second Preference: Source Identified seed certified by a seed certifying agency other than MCIA but with a genetic origin in Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin
- 3) Third Preference: Certified seed of varieties/germplasm listed in Table 3876-1.
- 4) Fourth Preference: Wild Type from Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin. Wild type seed is defined as seed of a local or regional ecotype that has originated from remnant native stands and that has not undergone any intentional selection process.

S-50.3

MnDOT Table 3876-1 is hereby deleted and replaced with the following:

TABLE 3876-1			
NATIVE GRASSES			
SEED COUNTS AND ACCEPTABLE GERmplasm			
Trade Name	Scientific Name+	Acceptable Varieties/Germplasm*	Seeds Per Pound
Big Bluestem	<i>Andropogon gerardi</i>	Bonilla, Bison	131,200
Sideoats Grama	<i>Bouteloua curtipendula</i>		96,000
Blue Grama	<i>Bouteloua gracilis</i>		640,000
Fringed Brome	<i>Bromus ciliatus</i>		160,000
Kalm's Brome	<i>Bromus kalmii</i>		128,000
Hairy wood chess	<i>Bromus purgans</i>		121,600
Buffalo grass	<i>Buchloe dactyloides</i>		51,200
Blue-joint grass	<i>Calamagrostis Canadensis</i>		3,360,000
Bottle Brush Sedge	<i>Carex comosa</i>		384,000
Tussock Sedge	<i>Carex stricta</i>		848,000
Fox Sedge	<i>Carex vulpinoidea</i>		1,440,000
Canada Wild Rye	<i>Elymus canadensis</i>	Mandan	67,200
Bottle brush grass	<i>Elymus hystrix</i>		75,200
Slender Wheat Grass	<i>Elymus trachycaulus</i>	Revenue	135,000
Virginia Wild Rye	<i>Elymus virginicus</i>		62,400
Western Wheat Grass	<i>Elytrigia smithii</i>		113,600
Reed Manna Grass	<i>Glyceria grandis</i>		1,280,000
Fowl Manna Grass	<i>Glyceria striata</i>		2,560,000
Common rush	<i>Juncus effusus</i>		16,000,000
June Grass	<i>Koeleria macrantha</i>		2,400,000
Switch Grass	<i>Panicum virgatum</i>	Forestburg, Dacotah	224,000
Fowl Bluegrass	<i>Poa palustris</i>		2,080,000
Canada Bluegrass	<i>Poa compressa</i>		2,400,000
Little Bluestem	<i>Schizachyrium scoparium</i>	Itasca Germplasm	140,800
Green Bulrush	<i>Scirpus atrovirens</i>		2,240,000
Wool-grass	<i>Scirpus cyperinus</i>		2,880,000
Soft-stem Bulrush	<i>Scirpus validus</i>		496,000
Indian Grass	<i>Sorghastrum nutans</i>	Tomahawk	132,800
Prairie Cordgrass	<i>Spartina pectinata</i>	Red River Germplasm	105,600
Rough Dropseed	<i>Sporobolus asper</i>		480,000
Sand Dropseed	<i>Sporobolus cryptandrus</i>		3,200,000
Prairie Dropseed	<i>Sporobolus heterolepis</i>		224,000
Green Needle Grass	<i>Stipa viridula</i>		120,000
* Varieties listed are approved for use in 100 and 200 series mixes. Their substitution for MCIA Source Identified seed in 300 series mixes is only allowed upon satisfaction of the requirements of 3876.2 A5. When multiple varieties are listed for a single species, they are listed in order of preference.			

S-50.4 Delete MnDOT 3876.2B Requirements for Native Grasses, Sedges, Rushes (label and paragraphs) and replace with:

B Requirements for Native Grasses, Sedges, and Rushes Table 3876-1
 (Keep table 3876-1)

S-50.5 Delete MnDOT 3876.2E Requirements for Native Forbs (Wildflowers): (label and paragraphs) and replace with:

E Requirements for Native Forbs (Wildflowers) Table 3876-4
 (Keep table 3876-4)

S-50.6 Mixtures 260 and 270 in MnDOT Table 3876-5 are hereby deleted and replaced with the following:

Mixture: 260			
Common Name	Bulk Rate		% of Mix Component
	kg/ha	lb/ac	
Bluegrass, Kentucky "Certified Park"	35.8	40	32.0
Bluegrass, Canada	11.2	12.5	10.0
Bluegrass, Kentucky - Low Maintenance ¹	33.6	37.5	30.0
Fescue, hard	9.0	10	8.0
Rye-grass, perennial	22.4	25	20.0
GRAND TOTALS:	112	125	100.0
¹ Any accepted low maintenance Kentucky Bluegrass Except "Park" Purpose: Commercial Turf			

Mixture: 270			
Common Name	Bulk Rate		% of Mix Component
	kg/ac	lb/ac	
Bluegrass, Kentucky - Elite	33.6	37.5	25.0
Bluegrass, Kentucky - Improved	33.6	37.5	25.0
Bluegrass, Kentucky - Low Maintenance	33.6	37.5	25.0
Red fescue, creeping	10.8	12	8.0
Rye-grass, perennial	22.8	25.5	17.0
GRAND TOTALS:	134.4	150	100.0
Purpose: Residential Turf			

S-50.7
 following:

The 300 series mixes from MnDOT Table 3876-5 are hereby deleted and replaced with the

Table 3876-5

Mixture: 310			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Bluestem, big	2.8	2.5	25.0
Indian grass	2.8	2.5	25.0
Wild-rye, Virginia	2.2	2.0	20.0
Switch grass	0.6	0.5	5.0
Blue-joint grass	0.3	0.25	2.5
Green bulrush	0.3	0.25	2.5
Wool grass	0.3	0.25	2.5
Giant bur reed	0.3	0.25	2.5
Cordgrass, prairie	1.7	1.5	15.0
Grass Totals:	11.3	10.0	100.0
	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	78.3	70	100.0
Wet Forbs Mixture (Table 3876-6)	2.2	2.0	100.0
GRAND TOTALS:	91.8	82.0	100.0
*Oats to be substituted for spring plantings			
Purpose: Native mix for wetter areas. Infiltration ponds, dry ponds, wet ditches. Tall height.			

Mixture: 325			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Bluestem, big	1.7	1.5	15.0
Fringed brome	1.7	1.5	15.0
Wheat grass, slender	1.7	1.5	15.0
Virginia wild-rye	1.7	1.5	15.0
Switch grass	0.6	0.5	5.0
Fowl bluegrass	1.7	1.5	15.0
Indian grass	1.7	1.5	15.0
Prairie cord grass	0.6	0.5	5.0
Grass Totals:	11.4	10.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Blue-joint grass	0.22	0.2	10.0
Bottlebrush sedge	0.34	0.3	15.0
Tussock sedge	0.22	0.2	10.0
Fox sedge	0.22	0.2	10.0
Reed manna grass	0.22	0.2	10.0
Fowl manna grass	0.22	0.2	10.0
Green bulrush	0.22	0.2	10.0
Wool grass	0.22	0.2	10.0
Soft-stem bulrush	0.34	0.3	15.0
Sedge Totals:	2.22	2.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Winter Wheat*	61.6	56	80.0
Rye-grass, annual	12.3	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	77	70	100.0
Wet Forbs Mixture (Table 3876-6)	2.2	2.0	100.0
GRAND TOTALS:	92.8	84.0	100.0
*Oats to be substituted for spring plantings			
Purpose: Native sedge/prairie meadow mix. Reaches a height of 915 mm to 1220 mm (36 to 48 inches). Developed for use on hydric soils and for wetland restoration.			

Mixture: 328			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Bluestem, big	2.2	2	12.5
Brome, fringed	2.2	2	12.5
Wild-rye, Virginia	4.4	4	25.0
Switchgrass	1.1	1	6.3
Bluegrass, fowl	5.5	5	31.2
Indian grass	2.2	2	12.5
Grass Totals:	17.6	16.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Winter Wheat*	61.6	56.0	80.0
Rye-grass, annual	12.3	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	77	70	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Milkweed, marsh	0.33	0.3	15.0
Prairie clover, purple	0.33	0.3	15.0
Tic-trefoil, showy	0.33	0.3	15.0
Sunflower, early	0.33	0.3	15.0
Black-eyed Susan	0.55	0.5	25.0
Vervain, blue	0.33	0.3	15.0
Economy Forbs Totals:	2.2	2.0	100.0
GRAND TOTALS:	96.8	88.0	100.0
*Oats to be substituted for spring plantings			
Purpose: Native mix for infiltration ponds, dry ponds, temporary wet ditches. Tall height.			

Mixture: 330			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Grama, sideoats	3.4	3.0	21.5
Grama, blue	2.8	2.5	18.0
Bluestem, little	3.9	3.5	25.0
June grass	1.1	1.0	7.0
Dropseed, sand	1.1	1.0	7.0
Wild-rye, Canadian	3.4	3.0	21.5
Grass Totals:	15.7	14.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	78.3	70	100.0
Dry Forbs Mixture (Table 3876-6)	0.6	0.5	100.0
GRAND TOTALS:	94.6	84.5	100.0
*Oats to be substituted for spring plantings			
Application: Native mix for Sandy/dry areas. Short height.			

Mixture: 340			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Bluestem, big	3.3	3.0	21.5
Bluestem, little	2.8	2.5	18.0
Wild-rye, Canadian	2.2	2.0	14.0
Grama, sideoats	2.2	2.0	14.0
Switch grass	0.6	0.5	4.0
Dropseed, sand	0.6	0.5	3.5
Bluegrass, Canada	3.4	3.0	21.5
June grass	0.6	0.5	3.5
Grass Totals:	15.7	14.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	78.3	70	100.0
Dry Forbs Mixture (Table 3876-6)	0.6	0.5	100.0
GRAND TOTALS:	94.6	84.5	100.0
*Oats to be substituted for spring plantings			
Purpose: Native mix for Sandy/Dry areas. Mid-height.			

Mixture: 350			
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Bluestem, big	3.4	3.0	21.5
Indian grass	2.8	2.5	18.0
Bluestem, little	2.8	2.5	18.0
Gramma, sideoats	3.4	3.0	21.5
Wild-rye, Canadian	2.2	2.0	14.0
Switch grass	1.1	1.0	7.0
Grass Totals:	15.7	14.0	100.0
Common Name	PLS Rate		% of Mix Component
	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	78.3	70	100.0
Mesic Forbs Mixture (Table 3876-6)	0.6	0.5	100.0
GRAND TOTALS:	94.6	84.5	100.0
*Oats to be substituted for spring plantings			
Application: Native mix for general roadside areas.			

S-50.8

MnDOT Table 3876-6 is hereby deleted and replaced with the following:

Table 3876-6

Mixture: Mesic Forbs		
Common Name	Botanical Name	% of Mix
Aster, smooth-blue	<i>Aster laevis</i>	5.0
Milkvetch, Canada	<i>Astragalus canadensis</i>	5.0
Prairie clover, white	<i>Dalea candidum</i>	5.0
Prairie clover, purple	<i>Dalea purpureum</i>	5.0
Tick-trefoil, Showy	<i>Desmodium canadense</i>	5.0
Coneflower, narrow-leaved	<i>Echinacea angustifolia</i>	5.0
Ox-eye, common	<i>Heliopsis helianthoides</i>	5.0
Coneflower, grey-headed	<i>Ratibida pinnata</i>	5.0
Blazingstar, rough	<i>Liatris aspera</i>	5.0
Blazingstar, tall	<i>Liatris pycnostachya</i>	5.0
Bergamot, wild	<i>Monarda fistulosa</i>	5.0
Penstemon, showy	<i>Penstemon grandiflorum</i>	5.0
Mint, mountain	<i>Pycnathemum virginianum</i>	5.0
Coneflower, columnar	<i>Ratibida columnifera</i>	5.0
Black-eyed Susan	<i>Rudbeckia hirta</i>	5.0
Goldenrod, stiff	<i>Solidago rigida</i>	5.0
Vervain, blue	<i>Verbena hastata</i>	5.0
Vervain, hoary	<i>Verbena stricta</i>	5.0
Alexanders, heart-leaved	<i>Zizia aptera</i>	5.0
Alexanders, golden	<i>Zizia aurea</i>	5.0
Total:		100.0
Rate: 0.6 kg/ha (½ pounds per acre) PLS.		

Mixture: Dry Forbs		
Common Name	Botanical Name	% of Mix
Leadplant	<i>Amorpha canescens</i>	10.0
Milkweed, butterfly	<i>Asclepias tuberosa</i>	2.0
Aster, heath	<i>Aster ericoides</i>	4.0
Tic-seed, stiff	<i>Coreopsis palmate</i>	2.0
Yarrow	<i>Achillea millefolium</i>	2.0
Long-leaved bluets	<i>Hedyotis longifolia</i>	1.0
Bushclover, round-headed	<i>Lespedeza capitata</i>	3.0
Blazingstar, rough	<i>Liatris aspera</i>	4.0
Blazingstar, dotted	<i>Liatris punctata</i>	3.0
Lupine, wild	<i>Lupinus perennis</i>	5.0
Prairie clover, white	<i>Dalea candidum</i>	5.0
Prairie clover, purple	<i>Dalea purpureum</i>	16.0
Prairie rose	<i>Rosa arkansana</i>	1.0
Black-eyed susan	<i>Rudbeckia hirta</i>	18.0
Goldenrod, gray	<i>Solidago nemoralis</i>	3.0
Goldenrod, upland	<i>Solidago ptarmicoides</i>	1.0
Goldenrod, stiff	<i>Solidago rigida</i>	2.0
Goldenrod, showy	<i>Solidago speciosa</i>	2.0
Vervain, hoary	<i>Verbena stricta</i>	14.0
Alexander's, golden	<i>Zizea aurea</i>	2.0
	Total:	100.0
Rate: 0.6 kg/ha (½ pounds per acre) PLS		

Mixture: Wet Forbs		
Common Name	Botanical Name	% of Mix
Hyssop, fragrant giant	<i>Agastache foeniculum</i>	2.0
Water plantain	<i>Alisma subcordatum</i>	4.0
Meadow garlic	<i>Allium canadense</i>	1.0
Anemone, Canada	<i>Anemone Canadensis</i>	1.0
Milkweed, marsh	<i>Asclepias incarnata</i>	2.0
Aster, panicled	<i>Aster simplex</i>	3.0
Aster, New England	<i>Aster novaeangliae</i>	3.0
Aster, red-stalked	<i>Aster puniceus</i>	3.0
Aster, flat-topped	<i>Aster umbellatus</i>	1.0
Tick trefoil, Canada	<i>Desmodium glutinosum</i>	1.0
Joe-pye weed	<i>Eupatorium maculatum</i>	17.0
Boneset	<i>Eupatorium perfoliatum</i>	10.0
Goldenrod, grass-leaved	<i>Solidago graminifolia</i>	2.0
Sneezeweed	<i>Helenium autumnale</i>	1.0
Giant sunflower	<i>Helianthus giganteus</i>	2.0
Ox-eye, common	<i>Heliopsis helianthoides</i>	1.0
Great St. John's wort	<i>Hypericum pyramidalatum</i>	2.0
Iris, wild	<i>Iris versicolor</i>	1.0
Blazingstar, tall	<i>Liatris pycnostachya</i>	8.0
Bergamot, wild	<i>Monarda fistulosa</i>	1.0
Prairie clover, white	<i>Dalea candidum</i>	1.0
Prairie clover, purple	<i>Dalea purpureum</i>	2.0
Mountain mint	<i>Pycnathemum virginianum</i>	1.0
Black-eyed susan	<i>Rudbeckia hirta</i>	6.0
Goldenrod, stiff	<i>Solidago rigida</i>	2.0
Tall meadow rue	<i>Thalictrum dasycarpum</i>	2.0
Vervain, blue	<i>Verbena hastata</i>	14.0
Ironweed	<i>Veronia fasciculate</i>	1.0
Culver's root	<i>Veronicastrum virginicum</i>	3.0
Alexander's, golden	<i>Zizia aurea</i>	2.0
	Total:	100.0
Rate: 2.2 kg/ha (2 pounds/acre) PLS		

S-51 (3877) TOPSOIL BORROW

MnDOT 3877 is hereby modified as follows:

S-51.1 MnDOT 3877.2A (Topsoil Borrow) is hereby deleted and the following substituted therefore:

A Topsoil Borrow

Topsoil borrow for general use as a turf growing medium shall meet the requirements of Table 3877-1:

TABLE 3877-1 TOPSOIL BORROW REQUIREMENTS		
Requirement	Range	Test Method
Material passing 1/4 inch [6.35 mm]	≥ 85%	—
Clay	5% – 30%	ASTM D 422
Silt	10% – 70%	ASTM D 422
Sand	10%– 70%	ASTM D 422
Organic matter	3% – 20%	ASTM D 2974
pH	6.1 – 7.8	ASTM G 51

S-51.2 MnDOT 3877.2B (Select Topsoil Borrow) is hereby deleted and the following substituted therefore:

B Select Topsoil Borrow

Select topsoil borrow for use as a plant growing medium in designated areas, such as landscape beds, shall meet the requirements of Table 3877-2:

TABLE 3877-2 SELECT TOPSOIL BORROW		
Requirement	Range	Test Method
Material passing 1/4 inch [6.35 mm]	≥ 90%	—
Clay	5% – 30%	ASTM D 422
Silt	10% – 50%	ASTM D 422
Sand	20% – 70%	ASTM D 422
Organic matter	3% – 20%	ASTM D 2974
pH	6.1 – 7.5	ASTM G 51
Soluble salts	≤ 0.15 siemens/m [1.5 mmho/cm]	<i>American Society Agronomy Chapter 62.2</i>

S-51.3 MnDOT 3877.2C (Premium Topsoil Borrow) is hereby deleted and the following substituted therefore:

C Premium Topsoil Borrow

Premium topsoil borrow for use as a plant growing medium in critical areas and top dressing erosion stabilization mats shall meet the requirements of Table 3887-2 and shall be screened and pulverized.

S-52 (3889) TEMPORARY DITCH CHECKS

The provisions of MnDOT 3889 are supplemented and/or modified with the following:

S-52.1 MnDOT 3889.2B Type 2: Bioroll, is revised to read as follows:

Type 2 ditch checks shall consist of 3897 Filter Log Type; Straw Bioroll or Wood Fiber Bioroll.

S-52.2 MnDOT 3889.2C Type 3: Bioroll Blanket System, is revised to read as follows:

Type 3 ditch checks shall consist of two components; Filter Log Type; Straw Bioroll or Wood Fiber Bioroll in accordance with 3897, staked on top of a Category 3, specification 3885 erosion control blanket. The blanket shall form a minimum width of 3.7 m (**12 feet**) perpendicular to the ditch gradient.

S-53 (3891) STORM DRAIN INLET PROTECTION

The provisions of MnDOT 3891 are supplemented and/or modified with the following:

S-53.1 MnDOT 3891.3A Rock Log, is revised to read as follows:

Rock logs shall meet the requirements of 3897.2 Filter Log Type Rock Log.

S-53.2 MnDOT 3891.3B Compost Log, is revised to read as follows:

Compost logs shall meet the requirements of 3897.2 Filter Log Type Compost Log

S-54 **FINAL ESTIMATE AND FINAL PAYMENT**
(2013 version)

The following provisions shall apply to preparation of the Final Estimate and execution of Final Payment under this Contract:

S-54.1 **FINAL ESTIMATE**

State Law provides that the final estimate will be made within 90 days after completion of all work required under this Contract. If, however, the total value of the Contract exceeds \$2,000,000.00, the 90 day requirement will not apply and the time allowed for making such final estimate shall be 180 days after the work under this Contract has been, in all things, completed to the satisfaction of the Commissioner.

S-54.2 **FINAL PAYMENT**

If this Contract contains a "Disadvantage Business Enterprise or Targeted Group Business" goal, the following requirement shall apply:

"Before final payment is made, the Contractor shall also complete an affidavit showing the total dollar amounts of work performed by disadvantaged business enterprise (DBE) and targeted group business (TGB) and/or veteran-owned small business."

2571 PLANT INSTALLATION AND ESTABLISHMENT

2571.1 DESCRIPTION

This work consists of providing, planting, and establishing trees, shrubs, vines, and perennials of the species, variety, grade, size, or age, and root category specified for the locations shown on the plans, including planting or transplanting plants provided by the Department.

Perform this work in accordance with the current edition of the Inspection and Contract Administration Manual for Mn/DOT Landscape Projects (ICAMMLP).

2571.2 MATERIALS

A Nursery Plant Stock3861

Provide plants of the species shown on the plans in the variety, grade, and size, or age indicated.

A.1 Investigations and Supply of Planting Stock and Materials

By submitting a proposal and accepting award of the contract in accordance with 1205, "Examination of Plans, Specifications, Special Provisions and Site of Work," the Contractor assures familiarity with the project site and contract documents, commitments from suppliers, and delivery of the plant stock and materials required to complete the contract.

A.2 Plant Stock and Materials Documentation

Provide the following plant stock and materials documentation:

- (1) At or before the preconstruction conference, provide the Engineer with a Mn/DOT-preliminary *Certificate of Compliance for Plant Stock, Landscape Materials, and Equipment* (copy of form provided in the current edition of ICAMMLP).
- (2) At least one week before plant stock delivery to the project, provide the Engineer with the following:
 - (2.1) A copy of a valid nursery stock, dealer or grower certificate, registered with the Minnesota Department of Agriculture (MDA), a current nursery certificate or license from a state or provincial Department of Agriculture for each plant stock supplier, or both;
 - (2.2) Documentation certifying that plant material shipped from out-of-state nursery vendors subject to state and federal quarantines, is free of currently regulated pests, including Emerald Ash Borers, and Gypsy Moths. To determine if Minnesota vendors are subject to quarantines, call the MDA Supervisor of Nursery Inspection and Export Certification at (651) 201-6388; and
 - (2.3) An updated *Certificate of Compliance*, signed by the Contractor's authorized representative.
- (3) Upon delivery of plant stock and materials to the project, provide the Engineer with the following:
 - (3.1) Bills of lading or shipping documents for plant stock and landscape materials delivered to the project, and
 - (3.2) An updated and signed *Certificate of Compliance*, if necessary, to reflect deviations from the original *Certificate of Compliance* documentation submitted at or before the preconstruction conference.
- (4) As a condition for authorization of payments, provide the Engineer with vendor invoices or billing statements for plant stock and materials used on the project.

The Engineer will consider work performed with plant stock, materials, or equipment that was misrepresented in the documentation, as unauthorized work.

If the Contractor does not provide the documentation required by this section, the Engineer may consider subsequent work unauthorized and the Department may assess a daily charge of \$200.00, on a calendar day basis, until the Contractor achieves compliance.

A.3 Substitutions

The Engineer may allow substitutions in accordance with 1605, "Substitute Materials." Before requesting substitutions, provide written documentation that plants shown on the plans are not available in quantities to fulfill the contract requirements from the individual suppliers on the *Partial List of Nursery Dealers and Growers* in the most current edition of the ICAMMLP. The Engineer, in consultation with the project designer, may authorize specific substitute plants or may extend the contract time to ensure availability of the plants shown on the plans. Provide substitutions equal to or better than the initially specified materials.

B Department Furnished Stock and Transplant Stock

Obtain Department provided stock and transplant stock from sources shown on the plans or specified by the special provisions.

C Incidental Materials and Work

The Department considers incidental materials and work, specified, non-specified, replacement, or miscellaneous, to include materials and work that are incidental to payment for the individual plant installation contract items and for which the Department does not make direct payment.

C.1 Specified Incidental Materials and Work

Supply, install, and maintain incidental materials as required for plant installation and establishment in accordance with the special provisions, plans, and standard planting details.

C.2 Non-specified Incidental Materials and Work

Supply, install, and maintain non-specified incidental materials for plant installation and establishment success in accordance with product labeling, manufacturer's instructions, and applicable laws, regulations and ordinances.

C.3 Replacement Materials and Work

Provide materials and work to replace unacceptable or missing plants, materials, and incidental items in accordance with the special provisions, plans, and standard planting details. Provide replacement materials and work that is equal to or better than the initially specified materials and work.

C.4 Miscellaneous Incidental Materials, Equipment and Work

Miscellaneous incidental materials, equipment, and work include the following:

- (1) Mobilization,
- (2) Traffic control,
- (3) Protection and restoration of vegetation and property,
- (4) Layout and staking,
- (5) Soil cultivation,
- (6) Compost,
- (7) Mulch,
- (8) Rodent protection,
- (9) Staking and guying,
- (10) Seedling shelters,

- (11) Temporary erosion control,
- (12) Mowing,
- (13) Application of herbicides, insecticides, fungicides, and water and
- (14) Other materials, equipment, and work necessary to install, maintain, and establish plants as shown on the plans and in a healthy, vigorous, and weed-free condition.

2571.3 CONSTRUCTION REQUIREMENTS

A General

A.1 Landscape Specialist

Provide a Landscape Specialist, certified by the Department, to perform or supervise plant installation and establishment work. Provide documentation of the Certified Landscape Specialist at or before the preconstruction conference. Landscape specialists may obtain certification by completing the one-day Department Landscape Project Inspection and Administration Training Class and passing a test administered by the Department's Landscape Architecture and Forestry Units. Full certification is valid for 3 years. Landscape Specialists may obtain provisional certification for 1 year by passing a test without completing the training class.

A.2 Notices by Contractor

Notify the Engineer at least 3 calendar days before planned deliveries of initial and replacement planting stock to the project to allow for inspection scheduling. Notify the Engineer at least 24 hours before beginning or changing distinct operations. Include the following in the notice:

- (1) The project number,
- (2) Engineer's name,
- (3) Notification date,
- (4) Intended dates and times for the operations, and
- (5) The planned locations of work.

Provide notifications in writing, using confirmable e-mail, or facsimile transmissions.

A.3 Unauthorized Work and Penalties for Non-compliant Operations

The Engineer will consider work performed as follows to be unauthorized work:

- (1) Without required and acceptable documentation and notifications,
- (2) Without supervision by a certified landscape specialist,
- (3) Without conducting required and acceptable competency tests, or
- (4) In conflict with the working hours of 1803, "Prosecution of Work."

In the case of non-compliant operations, the Department may assess a daily charge of \$200.00, on a calendar day basis, until the Contractor achieves compliance.

A.4 Required Equipment

Provide equipment meeting the requirements of 1805, "Methods and Equipment," and with the following available on the project at all times:

- (1) At least one portable compaction tester capable of measuring compaction in the soil to at least 18 in [450 mm] deep,
 - (2) At least one soil recovery probe for assessment of soil moisture conditions, and
- At least one tree caliper with measurement readings in inches.

B Preconstruction Work

Preconstruction work includes:

- (1) Attending a preconstruction conference,
- (2) Submitting preconstruction documentation,
- (3) Mobilizing equipment and supplies to the project,
- (4) Protecting existing vegetation, resources, and property in accordance with the plans, special provisions, and 1712, "Protection and Restoration of Property," 2031, "Field Office and Laboratory," 2557, "Fencing," and 2572, "Protection and Restoration of Vegetation."

C Staking Planting Holes and Beds

Stake the exact locations and layouts for the Engineer's approval.

To remedy unanticipated, localized problems and seasonal conditions that may hinder plant establishment, the Contractor may request the Engineer's approval to perform the following in accordance with the standard planting details and options shown on the plans:

- (1) Relocate plantings,
- (2) Make plant substitutions, or
- (3) Modify soil or drainage characteristics.

Locate plantings to provide the following:

- (1) A clear sight distance of at least 1,200 ft [360 m] in front of traffic signs and extending 50 ft [15 m] beyond the signs; and
- (2) Clear zones and safety sight corners and lines shown on the plans free of plants.

D Preparing Planting Holes and Planting Beds

To prevent site compaction and damage, do not work in planting holes and bed areas if the soil moisture is greater than field capacity.

D.1 Utilities

Before cultivating soil or excavating holes on the project, meet the requirements of 1507, "Utility Property and Service."

The Contractor may request the Engineer's approval to relocate plantings to avoid unanticipated conflicts with utilities.

D.2 Weed Control and Soil Cultivation

Apply herbicide to actively growing vegetation beginning in spring or fall. Before cultivating individual planting holes and bed areas, kill turf and weed growth within the limits of planting areas that will receive mulch in accordance with the following:

- (1) Mow existing vegetation to at least 3 in [75 mm] at least one week before spraying herbicide. Remove the cuttings. Allow the vegetation to re-grow to a height from 4 in to 8 in [100 mm to 200 mm] before applying the herbicide.
- (2) At least three days before applying herbicide, submit to the Engineer, labels of the intended herbicides and a copy of a valid MN Pesticide Applicator License, including Category A and Category J.
- (3) Spray and kill turf and weeds, including the top growth and roots, only within designated areas using a non-selective, non-residual post emergent herbicide containing 41 percent glyphosate as the active ingredient. Ensure personnel, licensed by the MDA and experienced in the use of

chemical pesticides perform the work in accordance with the manufacturer's instructions and recommendations. Apply the herbicide to dry foliage on actively growing vegetation. Apply the herbicide in August or early September before the fall or spring Plant Installation Period (PIP) as required by the contract. If an August or September application is not possible for the spring PIP, apply the herbicide in late April or early May. If precipitation occurs within 6 hours after applying herbicide, reapply herbicide as needed to achieve 100 percent kill.

- (4) Before beginning soil cultivation work, schedule and perform a Competency Test to the satisfaction of the Engineer. The Engineer considers a satisfactory Competency Test one that demonstrates acceptable soil cultivation, incorporation of soil additives, compaction levels, and soil drainage in one planting bed area and one individual tree planting area.
- (5) Before placing soil additives as shown on the plans, use a spading machine to deep cultivate the planting hole and bed areas by loosening the soil to at least 12 in [300 mm] deep and a compaction level of no more than 200 psi [1,400 kPa] to this depth, as measured from the finished grade elevation of the soil. The Engineer may approve other equipment to address site constraints, if requested by the Contractor. For hydraulic spade-type, machine-moved tree-transplanting, the Engineer will not require planting hole cultivation, other than loosening the soil outside the soil-ball perimeter in accordance with the standard planting details shown on the plans.
- (6) Unless otherwise shown on the plans, add 4 in [100 mm] of Grade 2 compost, in accordance with 3890, "Compost" and other soil additives shown on the plans or as requested by the Contractor and approved by the Engineer, over the cultivated planting hole and bed areas and use a spading machine to incorporate it to a depth of at least 12 in [300 mm], as measured from the finished grade elevation of the soil.
- (7) Use a compaction tester to ensure compaction in the planting hole and bed areas does not exceed 200 psi [1,400 kPa] to a depth of at least 16 in [400 mm]. If Contractor-operations result in zones of hardpan or excessively compacted soil, repeat deep cultivation or de-compact the subsoil in accordance with 2105.3.G.2, "Compaction Testing and the Grading and Base Manual" specifically the requirements for turf establishment areas, at no additional cost to the Department.
- (8) Ensure drainage in the planting hole and bed areas. For suspected drainage problems, perform a percolation test by filling a 16 in [400 mm] deep planting hole with water and measuring the time it takes the water to drain from the hole. The Engineer considers adequate drainage equal to or greater than a percolation rate of ½ in/h [12 mm/h]. If drainage does not meet these requirements, request approval from the Engineer to relocate or delete affected planting locations or proceed with Extra Work using one or a combination of the planting details for poorly drained soils, as shown on the plans.
- (9) Apply temporary erosion control measures in accordance with the NPDES permit, SWPPP notes, and 2573, "Storm Water Management." The Contractor may use Type 6 wood chip mulch at a depth no more than 1 in [25 mm] for temporary erosion control in prepared planting bed areas.

D.3 Wet Soils, Rock, and Debris

If the Contractor encounters excessively wet soils, bedrock, or excessive quantities of boulders and construction debris, the Contractor may request the Engineer's approval to relocate or delete plantings, or modify soil or drainage characteristics in accordance with the alternative options in the standard planting details shown on the plans.

E Delivery and Storage of Plants

Before installation, the Engineer will provide for inspection and acceptance of plant stock delivered to the project in accordance with the current edition of the ICAMMLP and 3861, "Plant Stock."

Install plant stock on the day of delivery to the project unless using temporary storage methods. Before installation, keep the roots of plants completely covered with a moisture-holding material consisting of wood chips, straw, sawdust, moss, or soil. Keep the moisture-holding material continuously moist and protect it from drying winds, direct sunlight, excessive heat, freezing, low humidity, inadequate ventilation, and animal or human harm. The Engineer will consider plants with damage that occurred or was discovered during temporary storage, unacceptable. Do not store plants from one planting season to the next.

E.1 Pruning — Top Growth and Roots

Immediately before planting, prune the roots of bare-root plants, except seedlings, and the top growth of deciduous plants. Cut-back broken or badly bruised roots and dry root tips to sound, healthy tissue. Prune to remove dead, rubbing, damaged, diseased, and suckering branches, and to improve plant symmetry, structure, and vigor. Prune coniferous trees and shrubs only to remove damaged growth or a competing leader.

Prune in accordance with the horticultural practices specified in the current edition of the ICAMMLP and the standard planting details on the plans.

Do not prune oak trees during the oak wilt season from April through July, to prevent the spread of oak wilt disease. Immediately treat accidental cuts or wounds to oaks with a wound dressing in accordance with the standard planting details shown on the plans. Keep wound-dressing material on the project during the oak wilt season.

E.2 Buried Root Flares

The Engineer will consider container-grown and balled and burlapped plant stock unacceptable if provided with more than 4 in [100 mm] of soil depth above the root flare. The Engineer may accept plants provided with no more than 4 in [100 mm] excess soil above the root flare if the excess soil can be removed without damaging the root system of the plants.

E.3 Excessive Roots

Reject containerized or balled and burlapped plants with roots extending at least 4 in [100 mm] beyond the container or burlap.

F Installation of Plants

F1 General

Before proceeding with plant installation work, schedule and perform a competency test demonstrating acceptable plant installation methods to the Engineer's satisfaction and in accordance with the plans and standard planting details, for each plant pay item and root category on the project. The Engineer considers a satisfactory competency test to be one that demonstrates acceptable handling of plants, digging of holes and beds, and installation of plants, initial watering, installation of protection materials and mulching.

Before digging planting holes, rake temporary erosion control wood chip mulch off prepared planting areas to prevent wood chip contamination of the planting soil in the holes.

The Contractor may re-spread wood chip mulch formerly used as temporary erosion control around plants to a depth no greater than 1 in [25 mm] following plant installation, if newly provided and acceptable Type 6 mulch is applied over the top to the depth shown on the standard planting details in the plans.

Dig planting holes to the configuration and minimum dimensions shown in the standard planting details on the plans. If the soil moisture is greater than field capacity, do not work in planting holes and beds.

Ensure drainage in the planting hole and bed areas. For a suspected drainage problem, perform a percolation test by filling a 16 in [400 mm] deep planting hole with water and measuring the time it takes the water to drain from the hole. The Engineer considers adequate drainage equal to or greater than a percolation rate of ½ in/h [12 mm/h]. If drainage does not meet these requirements, request approval from the Engineer to relocate or delete affected planting locations or proceed with extra work using one or a combination of the planting details for poorly drained soils as shown on the plans.

F.2 Individual Plant Stock Types and Installation Requirements

Install plants in accordance with the steps and requirements in the standard planting details shown on the plans and specific to each plant stock type.

G Watering

During the PIP, provide watering equipment and forces on the project capable of completely watering plants as often as necessary to maintain soil moisture in the root zones.

Within 2 hours of installation, saturate the backfill soil of each plant with water. After settling, provide additional backfill to fill in the voids.

H Mulch

Before placing mulch, fine grade and level the planting bed soils with hand tools. Place mulch material in accordance with the standard planting detail shown on the plans no more than seven days after plant installation. The Engineer will consider placement of mulch, contaminated with soil or other materials and not complying with the requirements of 3882, "Mulch Materials," unacceptable. Remove unacceptable mulch from the project.

I Protection of Installed Trees

Use protective materials to ensure the healthy growth and survival of installed trees.

I.1 Staking and Guying

Unless staking and guying is shown on the plans, only stake and guy trees if necessary to maintain the trees in a plumb condition. The following circumstances may warrant staking and guying:

- (1) Excessive soil moisture,
- (2) Light-textured soil,
- (3) Steep slopes,
- (4) Exposure to excessive wind, and
- (5) The likelihood of vandalism.

Install staking and guying in accordance with the standard planting details shown on the plans.

Remove staking and guying within 1 year of initial installation.

I.2 Rodent Protection

Place rodent protection around deciduous, pine, and larch trees in accordance with the standard planting details shown on the plans.

I.3 Tree Painting

Paint trees in accordance with the standard planting details shown on the plans.

I.4 Seedling Tree Shelters

Install seedling tree shelters in accordance with the standard planting details shown on the plans.

J Cleanup and Restoration Work

Perform the following cleanup and restoration work on an ongoing basis and as the final step of the initial planting operations:

- (1) Remove excess materials, rocks and debris from the project;

- (2) Repair turf in disturbed areas with seed mixes as shown on the plans or to match in-place turf;
 - (2.1) Immediately before sowing seed or laying sod, prepare soil as specified in 2575.3.B, "Grading Preparations Prior to Seeding;"
 - (2.2) Uniformly broadcast a Type 4 natural base fertilizer, as specified by 3881.2.B.4, "Type 4 — Natural Based Fertilizer," that provides nitrogen at an application rate of 43 lb/acre;
 - (2.3) Lay sod, or uniformly broadcast seed at 1.5 times the rate specified in Table 2575-1, "Seed Mixture Application Rates." Provide seed in accordance with the requirements of 3876, "Seed" and perform seeding in accordance with Table 2575-2, "Season of Planting;"
 - (2.4) Rake and firm seeded areas to ensure seed contact with the soil;
 - (2.5) Broadcast or disc anchor Type 1 mulch in all seeded areas;
- (3) Install erosion control measures to prevent erosion.

K Plant Establishment Period

K.1 Establishment Period

A Plant Establishment Period (PEP) of at least 2 calendar years begins on the date that initial planting operations on the project are completed and continues until final acceptance of the project, unless otherwise shown on the plans.

K.2 Establishment Work

Keep plants in a healthy growing condition in accordance with the current edition of the ICAMMLP throughout the establishment period and submit Mn/DOT *Landscape Contractor Scouting Reports* in accordance with item 1 of 2571.3.K.2.a, "All Plants." Perform plant establishment work throughout the growing seasons from April through October and as necessary during the dormant seasons from November through March. The Engineer may perform random inspections throughout the PEP to verify compliance. The Engineer will consider the Contractor non-compliant if the Contractor does not maintain plants throughout the PEP and does not submit scouting reports.

The Department may assess a daily charge of \$200.00 for non-compliance, on a calendar day basis, until the Contractor achieves compliance.

K.2.a All Plants

In plant establishment work, perform the following:

- (1) Scout to assess the condition of the plants and the planting site and factors that may influence plant health, vigor, and establishment success. Scout these conditions at least every two weeks during the growing season and at least every month during the dormant season;
- (2) Submit a written scouting report to the Engineer via e-mail by the 1st and 15th of each month during the growing season from April to October and by the 1st of each month during the dormant season from November to March. The Engineer will use the report-frequency and content to assess plant establishment compliance. The report may include scanned copies of the plan sheets with the Contractor notes, copies of the report form found in the current edition of the ICAMMLP, or both. Include the following in the report:
 - (2.1) The project number;
 - (2.2) Engineer's name;
 - (2.3) Name of Contractor's responsible scout or representative;
 - (2.4) Dates work was performed;
 - (2.5) Work locations;
 - (2.6) Work completed;
 - (2.7) Prevailing weather conditions;
 - (2.8) Soil moisture assessments;
 - (2.9) Insect, animal, vehicular, weather, or other damage;

- (2.10) Disease problems;
- (2.11) Treatment recommendations' and
- (2.12) Assessment of overall plant conditions including weed competition and control.
- (3) Maintain soil moisture in accordance with 2571.3.G, "Watering" and the watering guidelines of the standard planting details shown on the plans;
- (4) Repair, adjust, or replace staking and guying, mulch material, planting soil, rodent protection, seedling tree shelters, tree paint, and other incidental items in accordance with the plans;
- (5) Maintain healthy, vigorous plants. free of harmful insects, fungus, and disease;
- (6) Remove dead, dying, and unsightly plants. Provide and install replacement plants in accordance with 2571.2.K.2.b, "Replacement Requirements;"
- (7) Maintain plants in a plumb condition at the planting depth shown on the planting details in the plans;
- (8) Maintain planting areas in a weed-free condition as follows:
 - (8.1) Remove weeds, top growth and roots, within the mulch limits by hand pulling. Pre-water mulched areas to ensure weed top growth and roots are entirely removed. Ensure weeding operations do not contaminate the mulch or project with weed seed, weed-laden soil or propagating weed parts. Remove State and County-regulated noxious weeds to at least 5 ft [900 mm] beyond the mulch limits. Remove weed parts or weed-laden material from the project to avoid the spread of weed infestations;
 - (8.2) Do not spray chemicals for weed control in mulched planting areas during the PEP. The Contractor may apply a non-selective, non-residual post-emergent herbicide containing 41 percent glyphosate, as the active ingredient with a surfactant on a spot treatment basis with a brush or wick applicator. The Contractor may also apply a broad-spectrum dichlobenil based granular, pre-emergent herbicide in accordance with product labeling and manufacturer's recommendations;
 - (8.3) Do not weed whip or weed clip as weed control;
 - (8.4) Mow turf bands around the mulch limits at least 5 ft [900 mm] beyond the limits and at least 4 in [100 mm] high if the turf height exceeds 9 in [230 mm] adjacent to mulched planting areas;
 - (8.5) Mow turf areas installed as part of the project when the growth exceeds 18 in [500 mm] high. Mow turf from 6 in [150 mm] to 12 in [300 mm] high. Control State and County-listed noxious weeds;
- (9) Prune to remove dead, rubbing, damaged or diseased branches, unwanted suckers, and to improve plant form and structure;
- (10) Prevent or repair rutting and other damage that may lead to soil erosion and weed infestation;
- (11) Perform plant establishment operations consistent with plant care and horticultural practices detailed in the current edition of the ICAMMLP; and
- (12) Remove excess material, obsolete temporary erosion control devices, rocks, and debris from the project.

K.2.b Replacement Requirements

Within the first year of the 2-year PEP, determine which plants need replacing. Replace dead, defective, or missing plants and incidental materials in accordance with initial installation requirements, including plants lost due to accidents, vandalism, theft, rodent damage, damage caused by the Contractor, or if ordered by the Engineer, at no additional cost to the Department. Conduct plant replacement operations during the month of May within the first year of the PEP. At least one week before plant replacement, submit a summary report of proposed plant replacements to the Engineer. Include by attachment, copies of plan sheets with the proposed replacement quantities and locations identified and a Mn/DOT *Certificate of Compliance for Plant Stock, Landscape Material, and Equipment*, in the report. Using brightly colored paint, mark on site plants requiring replacement.

Provide replacement plants and incidental materials that are equal to or better than the initial material required by the contract.

If less than a full year remains in the PEP, do not replace plants unless the PEP is extended by a supplemental agreement or change order to provide at least one full year of establishment care.

L Acceptance of Work

For acceptance at full payment, ensure each plant meets the *Criteria For Accepting Plant Size* shown in the current edition of the ICAMMLP.

L.1 Acceptance of Preconstruction Work

The Engineer will accept the preconstruction work after the Contractor secures commitments for required materials, submits a Mn/DOT *Certificate of Compliance for Plant Stock, Landscape Materials, and Equipment*, participates in a preconstruction conference, obtains the Engineer's approval for the progress schedule, moves equipment and supplies to the project, and provides protection for existing plants.

L.2 Acceptance of Preparation of Planting Holes and Beds

For the Engineer's acceptance of preparation of planting holes and beds, complete a competency test, other specified staking, initial weed control, soil cultivation including incorporation of additives, and temporary erosion control work.

L.3 Acceptance of Initial Planting Operation

The Engineer will provisionally accept initial planting operations based on the following:

- (1) Plant stock acceptance,
- (2) Completion of a competency test,
- (3) Installation of individual plants, and
- (4) All incidental material and work items shown in the initial planting operations chapter of the current edition of the ICAMMLP, including initial but not limited to watering, tree protection materials, mulching, proper drainage, pruning, staking and guying, tree painting, fertilizing, erosion control, seeding and clean up.

L.4 Final Acceptance

As a condition for terminating the PEP and conducting the final inspection, the Engineer may require the Contractor to bring the plant establishment work into compliance.

On or about the date of termination of the PEP, the Engineer will perform a final inspection of the project.

The Engineer will determine which plants to accept for payment at the contract unit price, at a reduced payment, or with no payment.

Upon final acceptance, the Engineer will not require further Contractor-care of plantings.

The Engineer will make final acceptance at the completion of the two-year PEP and based on a final inspection of the completed project.

2571.4 METHOD OF MEASUREMENT

The Engineer will measure plants separately by the number of acceptable plants for each contract item in accordance with 2571.5.G, "Payment Schedule."

2571.5 BASIS OF PAYMENT

The Department will make payment for plant installation and establishment at a percentage of the contract unit price per item unit of measure for all costs relating to furnishing, installing, and maintaining, the required plants and associated incidental materials as specified and shown on the plans.

The Engineer may require additional materials and work beyond that specified or shown in the contract. The Department will make payment for the additional materials and work as extra work.

The Department may make full payment, reduced payment or no payment of no more than the maximum eligible partial payment percentage at any payment phase (initial, interim, final) based on the performance of the Contractor (see Payment Checklist in the current edition of the ICAMMLP).

A Full Payment

The Department will make full payment of 100 percent of the contract unit price for each plant the Engineer considers acceptable, upon inspection, if the Contractor fully achieves all Payment Criteria as defined in the Payment Checklist in the current edition of the ICAMMLP.

B Reduced or No Payments

The Department will make a reduced payment or no payment of the contract unit prices for each plant if the Contractor does not achieve all Payment Criteria, as defined in the Payment Checklist in the current edition of the ICAMMLP.

C Initial Payment

The Department will make partial payment up to 70 percent of the contract unit price for each plant for completion of the following work:

C.1 Preconstruction Work

The Department will pay no more than 10 percent of the contract unit price for each plant with the completion and acceptance of preconstruction work as defined in the *Preconstruction Work Checklist* in the current edition of the ICAMMLP.

C.2 Preparation of Planting Holes and Beds

The Department will pay no more than 15 percent of the contract unit price for each plant with the completion and acceptance of preparation of planting holes and beds work as defined in the *Preparation of Planting Holes and Beds Checklist* in the current edition of the ICAMMLP.

C.3 Initial Planting Operations

The Department will pay no more than 45 percent of the contract unit price for each plant with the completion and acceptance of initial planting operations work as defined in the *Initial Planting Operations Checklist* in the current edition of the ICAMMLP.

D Interim Payment

At the end of the first calendar year of the PEP, and after completion and acceptance of the Contractor's work and continuous compliance with the plant establishment requirements as defined by the *Plant Establishment-Year One Checklist* in the current edition of the ICAMMLP, the Engineer may authorize no more than 15 percent of the contract unit price for each plant.

E Final Payment

The Department will make final payment after final inspection and acceptance of the completed project at the end of the PEP. The Engineer may authorize no more than 15 percent of the contract unit price for each plant as defined by the *Plant Establishment Year 2 Checklist* in the current edition of the ICAMMLP. The total final

payment includes the Plant Establishment Year 2 payment, assessments and reduced payments, if any, and bonus payment, if eligible.

The Department will not pay for replacement plants, unless authorized by the Engineer.

The Department may continue to withhold any percentage of initial and interim payments from the final payment.

The Department will not reimburse any assessments charged during the contract period at the final payment. If the final voucher shows that the total of initial and interim payments made exceeds the total amount due the Contractor, promptly refund the Department for the overpayment.

F Bonus Payment

When 90 percent or more of all plants installed within the initial plant installation period (PIP) and related contract operations have been continuously acceptable throughout the contract period, the Department will make a bonus payment of 10 percent of the total final contract unit price for plant installation and establishment.

The Department considers replacement plants, replaced during the initial PIP, to be initially installed plants. Replacement plants made during the PEP are not eligible for bonuses.

G Payment Schedule

The Department will pay for plant installation and establishment on the basis of the following schedule:

Item No.	Item	Unit
2571.501	Coniferous tree (size & root category)	tree
2571.502	Deciduous tree (size & root category)	tree
2571.503	Ornamental tree (size & root category)	tree
2571.504	Coniferous shrub (size & root category)	shrub
2571.505	Deciduous shrub (size & root category)	shrub
2571.506	Vine (age or size & root category)	vine
2571.507	Perennial (age or size & root category)	plant
2571.541	Transplant tree (spade size*)	tree
2571.544	Transplant shrub	shrub
2571.546	Transplant vine	vine
2571.547	Transplant perennial	plant

NOTE: State Root Category: Seedling, Bare Root, Machine Moved, Container Grown, Balled and Burlapped

* Spade size: 42 in [1.1 m], 60 in [1.5 m], 78 in [1.9 m], 85 in [2.1 m], 90 in [2.3 m].

Minnesota Department of Transportation Schedule of Materials Control (SMC) – Introduction Page**(Federal Aid, State Funds, County/Municipal Federal Aid Projects and State Aid Projects)**

This schedule outlines the minimum sampling and testing required for most materials used in highway construction. Some items that are rarely used or materials of recent development are often covered by special provisions and may not be shown on the schedule. For more information regarding contract requirements for testing, please reference the "Standard Specifications for Construction", Specification 1603 Materials: Specifications, Samples, Tests, and Acceptance.

Laboratories performing acceptance tests for payment shall be accredited by the AASHTO Materials Reference Laboratory (AMRL) or a comparable accreditation program approved by MnDOT and the FHWA for all test procedures performed. Grading and Base materials are exempt from the accreditation requirement.

When sample sizes required for testing exceed 35 pounds, please submit multiple containers of the material with no individual container weighing more than 35 pounds.

Small quantities of materials may be accepted without sampling and testing. A small quantity is defined as any total quantity, for the whole project, of one material, which is smaller than the minimum quantity required for testing unless modified by the individual material items. These materials shall be from known, reliable sources, perform satisfactorily and meet the requirements for purpose intended. The inspection report (Form 02415) should include a statement to this effect and show the source. Form 2403 may be used to report small quantities of diverse materials from different sources. Form 02415 and Form 2403 (or approved revisions) are referenced in the Schedule of Materials Control for project record documentation and are required to be maintained in the project file.

Previously approved materials transferred from another project should be reported on Form 02415. The report should include: type of material, quantities involved, source, and supplier of materials. Whenever possible, include the project number for which the material was originally approved.

If Forms 02415 and 2403 are referenced by form number within the Materials Control Schedule for materials or products received from pre-approved sources, where the field responsibility for acceptance is visual inspection and all information required to complete these forms is contained in other documents in the project file, the use of these forms becomes optional. If these forms are completed and sent to the Project Engineer by off-site inspection personnel from the district or the Office of Materials, they must be retained in the project file.

A Telephone Index is included with the Schedule giving contact information for the specialty areas if further information is required regarding the various materials. A form index is also included.

The Department maintains the Approved/Qualified Products List and the Certified Products and Services List, as well as, the Schedule of Materials Control. All are available electronically on the Office of Materials and Road Research website. www.dot.state.mn.us/materials.html

Products manufactured offsite may be pre-approved; however, final acceptance will be made at the point of incorporation, based upon review of documentation and inspection for shipping or other damage.

Contact the MnDOT District Independent Assurance Inspector when project starts to provide the proper servicing of your project.

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Certifications List

Material	SMC Section	Sub Section	Page	Certification Needed
All Base, Surface, and Granular Materials	I. Grading & Base	Many	7-13	Form G&B-104 (24346) include gradation, crushing, bitumen content, and quality test results
Plant Mixed Asphalt (PMA)	II. Bituminous	Many	14-20	All PMA from certified supplier www.dot.state.mn.us/materials/bituminous.html
Shingles	II. Bituminous		15	Contractor shall provide documentation that of all RAS /TOSS (Tear Off Shingle) material is from a MPCA certified supplier.
Bituminous Material	II. Bituminous		19	Only Bituminous Materials from certified asphalt binder sources are allowed for use. The most current list of Certified Sources can at http://www.dot.state.mn.us/products
Emulsified Asphalt	II. Bituminous		19	Use Emulsion for seal coat from a certified emulsified asphalt source.
Certified Ready Mix	IV. Concrete	Many	28-29	Contact Report from Ready-Mix Plant. All concrete from certified plant including a computerized certificate of compliance with each load.
Portland Cement Fly Ash Ground Granulated Blast Furnace Slag Cement Admixtures	IV. Concrete		27	Concrete Plant Batching Materials: All materials must come from certified approved, or qualified sources. All certified sources must state so on the Bill of Lading Delivery invoice including MnDOT standardized certification statement for cement, flyash, and slag. The most current list of certified/approved sources can be found at www.dot.state.mn.us/products .
Plastic for Curing	IV. Concrete		35	A Certificate of Compliance shall be submitted to the Project Engineer from the Manufacturer certifying that the plastic complies with AASHTO M171.
Aggregate for Low Slump Overlays	IV. Concrete		39	Aggregate pit numbers and 1 passing gradation result per fraction per source

Certifications List (cont.)

Material	SMC Section	Sub Section	Page	Certification Needed
Profiler	IV. Concrete		38	Contractor provides MnDOT certified Inertial Profiler Results for bumps/dips and/or Areas of Localized Roughness for the entire project.
Aggregate for Concrete Pavement Repair	IV. Concrete		40	Aggregate pit numbers and 1 passing gradation result per fraction per source
Aggregate for Dowel Bar Retrofits	IV. Concrete		42	Aggregate pit numbers and 1 passing gradation result per fraction per source
Plant Stock & Landscape Materials	V: Landscaping etc.	2	43	Several certifications
Silt Fence	V: Landscaping etc.	5	44	Certificate of Compliance with MARV values
Flotation Silt Curtain	V: Landscaping etc.	6	44	Manufacturers' certification of compliance
Mulch Type 3	V: Landscaping etc.	12	44	Certified Vendor by Minnesota Crop Improvement Association must be tagged grain straw only on label.
Mulch Type 6 Wood Chips	V: Landscaping etc.	13	45	Emerald Ash Borer Compliance Agreement with the MDA
Seeds	V: Landscaping etc.	14	45	Certified Vendor by Minnesota Crop Improvement Association must be tagged.
Seeds - Native	V: Landscaping etc.	14	45	Certified Vendor by Minnesota Crop Improvement Association must be tagged.
Sod	V: Landscaping etc.	15	45	A certified tag by Minnesota Crop Improvement Association for Salt tolerant sod. A certificate of Compliance for all other types of sod listing grass varieties.
Compost	V: Landscaping etc.	16	45	A/QPL with certified test reports.
Waterproofing material membrane waterproof system	VI: Chemical Items		46	Certificate and test results
Waterborne latex traffic marking paint	VI: Chemical Items		47	Certificate of Compliance
Epoxy traffic paint	VI: Chemical Items		47	Certificate of Compliance
Traffic marking paint	VI: Chemical Items		47	Certificate of Compliance
Non-traffic marking paint	VI: Chemical Items		47	Certificate of Compliance
Bridge structural steel paint	VI: Chemical Items		48	Certificate of Compliance
Exterior masonry paint	VI: Chemical Items		48	Certificate of Compliance
Noise wall stain	VI: Chemical Items		48	Certificate of Compliance
Drop-on glass beads	VI: Chemical Items		48	Certificate of Compliance
Pavement marking tape	VI: Chemical Items		48	Certificate of Compliance
Steel sign posts	VII: Metallic	2	50	Certification of domestic source if applicable under 1601
Posts for traffic or fence	VII: Metallic	3A	50	Certification of domestic source if applicable under 1601 For fence: Fence certification form (Optional)
Fence components	VII: Metallic	3B	50	Fence certification form (Optional)
Fence gates	VII: Metallic	3C	50	Fence certification form (Optional)
Fence barbed wire fabric	VII: Metallic	3D	50	Fence certification form (Optional)
Fence woven wire fabric	VII: Metallic	3E	51	Fence certification form (Optional)
Fence chain link wire fabric	VII: Metallic	3F	51	Fence certification form (Optional)
Reinforcing steel uncoated bars	VII: Metallic	5A	51	Certificate of Compliance & certified mill analysis
Reinforcing steel epoxy bars	VII: Metallic	5B	52	Inspected tag or Certificate of Compliance & certified mill analysis
Steel Fabric	VII: Metallic	5E	52	Certificate of Compliance

Certifications List (cont.)

Material	SMC Section	Sub Section	Page	Certification Needed
Dowel Bars	VII: Metallic	5F	52	Certificate of Compliance
Pre or post tensioning strand	VII: Metallic	5G	53	Mill analysis
Anchor rods & Structural Fasteners	VII: Metallic	7, 8	53	Yearly MnDOT passing test report
Timber & lumber	VIII: Miscellaneous	1	57	Certified on invoice
Bearing pads	VIII: Miscellaneous	4	57	Certificate of Compliance
Corrugated metal pipe	IX: Geosynthetics & Pipe	1A	58	Certified on invoice
Corrugated metal structural plate	IX: Geosynthetics & Pipe	1B	58	Certified on invoice
Corrugated metal aluminum plate	IX: Geosynthetics & Pipe	1C	58	Fabricator's Certificate and guarantee
Concrete pipe & manholes reinforced	IX: Geosynthetics & Pipe	3A	58	Certified stamp and certification document
Precast box culverts	IX: Geosynthetics & Pipe	4A	59	Stamped & field inspection report
Prestressed beams & posts, etc	IX: Geosynthetics & Pipe	4B	59	Stamped & field inspection report
Manholes & catch basins	IX: Geosynthetics & Pipe	5	60	Certification document or stamped
Thermoplastic pipe ABS & PVC	IX: Geosynthetics & Pipe	7	60	Certificate of Compliance
Corrugated PE Pipe: Single wall – edge drains	IX: Geosynthetics & Pipe	8	60	Certificate of Compliance
Corrugated PE Pipe: dual wall – 12"-48"	IX: Geosynthetics & Pipe	13	61	Certificate of Compliance
Geotextile fabric	IX: Geosynthetics & Pipe	14	62	Manufacturers' Certification of compliance
Brick sewer concrete	X: Brick, Stone, Masonry	1B	63	Air content statement
Concrete masonry units	X: Brick, Stone, Masonry	2A	63	Air content statement
Light standards	XI: Electrical & Signal	1	64	Certificate of Compliance
Cable & Conductors	XI: Electrical & Signal	7	65	Usually inspected at the distributor. Documentation showing project number, reel number(s), & MnDOT test number(s) will be included with each project shipment. If not received from Contractor, submit sample for testing along with manufacturers' material certification.
Electrical systems	XI: Electrical & Signal	10	66	Electrical Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report.
Traffic signal systems	XI: Electrical & Signal	11	66	Traffic Signal Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report.

Telephone Index for Schedule of Materials Control

Section	Page	Section Name	Contact	Phone
Part I	Page 7	Grading & Base – Specifications 2105, 2106, 2118, 2211, 2212, 2215, and 2221	Terry Beaudry Cary Efta Rebecca Embacher	(651) 366-5456 (651) 366-5421 (651) 366-5525
Website: www.dot.state.mn.us/materials/gradingandbase.html				
Part II Part II C	Page 14 Page 19	Bituminous - Spec. 2360 Asphalt Binder	John Garrity Jim McGraw Jason Szondy	(651) 366-5577 (651) 366-5548 (651) 366-5549
Website: www.dot.state.mn.us/materials/bituminous.html				
Part III	Page 21	Bituminous Specialty Items	Terry Beaudry Greg Schneider Tom Wood	(651) 366-5456 (651) 366-5403 (651) 366-5573
Part IV	Page 26	Concrete – Aggregates and Mix Design Concrete – Certified Ready Mix Concrete Concrete Paving Concrete – Bridges Concrete – Pavement Rehabilitation	Wendy Garr Wendy Garr Rob Golish Ron Mulvaney Gordy Bruhn	(651) 366-5423 (651) 366-5423 (651) 366-5576 (651) 366-5575 (651) 366-5523
Website: www.dot.state.mn.us/materials/concrete.html				
Part V	Page 43	Landscaping and Erosion Control Items Erosion Control Landscaping Wood Chips	Lori Belz Scott Bradley Tina Markeson	(651) 366-3607 (651) 366-4612 (651) 366-3619
Part VI	Page 46	Chemical Items	Jim McGraw Dave Iverson	(651) 366-5548 (651) 366-5550
Part VII	Page 49	Metallic Materials and Metal Products Sampling Test Results Bridge Structural Metals	Steve Grover Laboratory Todd Niemann Barry Glassman	(651) 366-5540 (651) 366-5560 (651) 366-4567 (651) 366-4568
Part VIII	Page 57	Miscellaneous Materials Sections 1 thru 3 Section 4 Test Results	Steve Grover Todd Niemann Barry Glassman Laboratory	(651) 366-5540 (651) 366-4567 (651) 366-4568 (651) 366-5560
Part IX	Page 58	Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete Sections 1 thru 11, & 13 Section 12 Section 14 Test Results	Steve Grover Rich Lamb Randy Tilseth Laboratory	(651) 366-5540 (651) 366-5595 (651) 366-5451 (651) 366-5560
Part X	Page 63	Brick, Stone and Masonry Units/Modular Retaining Wall Blocks Sections 1, 2A,3, & 4 Section 2B Test Results	Steve Grover Blake Nelson Laboratory	(651) 366-5540 (651) 366-5599 (651) 366-5561
Part XI	Page 64	Electrical & Signal Sections 1, 8-11 Section 2, 4- 7 Section 3 Test Results	Susan Zarling Steve Grover Wendy Garr Laboratory	(651) 234-7052 (651) 366-5540 (651) 366-5423 (651) 366-5560

Form Index

Grading and Base	
Form No.	Form Name
G&B – 001 (02115-03)	Grading & Base Report
G&B – 002 (02154-02)	Random Sampling Acceptance
G&B – 101 (02402-03)	Sieve Analysis
G&B – 103 (02463)	Percent Crushing Report
G&B – 104 (24346)	Certificate of Aggregates & Granular Materials
G&B – 105 (21850)	Moisture Test
G&B – 203	(Table 2105-6, 2106-6) DCP Penetration Index Method
G&B – 204	(Table 2211-3) DCP Penetration Index Method
G&B – 205	2215 DCP Penetration Index Form – Full Depth Reclamation
G&B – 303 (24587-01)	Moisture - Density (Proctor) Test
G&B – 304 (02140-03)	Relative Density Test
Concrete	
Form No.	Form Name
2152	Concrete Batching Report
2162	Concrete Test Beam Data
2409	ID Card Concrete Test Cylinder
2448	Weekly Concrete Report
2449	Weekly Concrete Aggregate Report (QC/QA)
21412	Weekly Report of “Low Slump Concrete”
21763	Concrete Aggregate Worksheet
21764	Concrete Aggregate Worksheet JMF - Paving
21765	Concrete Aggregate Worksheet JMF
24143	Weekly Certified Ready-Mix Plant Report (Verification)
24300	ID Card Cement Samples
24308	ID Card Fly Ash Samples
24327	Field Core Report
	Concrete W/C Ratio Calculation Worksheet
	Incentive/Disincentive Smoothness Worksheet
Bituminous	
Form No.	Form Name
2413	Asphalt Sample Identification Card
Miscellaneous	
Form No.	Form Name
2410	Sample ID Card
02415	Inspection Report on (May be used for documentation or use another method to capture required documentation)
2403	Inspection Report for Small Quantities (May be used for documentation or use another method to capture required documentation)
	Certification Form for Type of Fence used, see on right side of page, www.dot.state.mn.us/materials/lab.html

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Verification (Acceptance) Testing (See Note 1)		Minimum Companion (Split Lab) Sample (See Notes 2 & 3)		Form No. (See Note 5)
				Rate	Size	Rate	Size	
(a) 2118 (b) 2211 (c) 2221 or 2118 (d) Spec. Prov. or 2212	I. Gradation (a) Aggregate Surfacing (b) Aggregate Base (c) Aggregate Shoulders (d) Drainable Aggregate Base (OGAB & DSB)	3136, 3138, & Special Provisions	Production: 1/550 yd ³ (CV)	<ul style="list-style-type: none"> • Random Sampling < 280 yd³ (CV) No tests Required • ≥ 280 yd³ (CV) to < 1,100 yd³ (CV) <ol style="list-style-type: none"> 1. Lot Size = Total Quantity 2. Divide lot into two equal sublots 3. Collect one random sample from each subplot 4. Average results to determine compliance • ≥ 1,100 yd³ (CV) to < 5,500 yd³ (CV) <ol style="list-style-type: none"> 1. Lot Size = Total Quantity 2. Divide Lot into four equal sublots 3. Collect one random sample from each subplot. 4. Average results to determine compliance • ≥ 5,500 yd³ (CV) <ol style="list-style-type: none"> 1. 	60 lb	1 per project in this category. Obtain split sample from the 1 st verification sample.	30 lb.	G&B-001 (02115-03) G&B-002 (02154-02) G&B-101 (02402) G&B-104 (24346-02)

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Verification (Acceptance) Testing (See note 1)		Minimum Companion (Split Lab) Sample (See Notes 2 & 3)		Form No. (See Note 5)
				Rate	Size	Rate	Size	
(e) 2105 2106	I. Gradation (Continued) (e) Granular Borrow Select Granular Borrow Modified Granular Borrow Stabilizing Aggregate	3149 & Special Provisions	1/10,000 yd ³ (CV)	1/20,000 yd ³ (CV)	30 lb.	1 per project in this category. Obtain split sample from the 1 st verification sample	30 lb.	G&B-001 (02115-03), G&B-101 (02402-03) G&B-104 (24346-02)
(f) Special Provisions & 2215	(f) Full Depth Reclamation (FDR)	Special Provisions & 3135	1/6,000 yd ² (See Note 10)	1/12,000 yd ²	60 lb	NA	NA	G&B-001 (02115-03) G&B-101 (02402-03)
(g) 2511	(g) Granular Filter	3601 & Special Provisions	1 per source before delivery on project	1 per source	300 lb	NA	NA	G&B-001 (02115-03) G&B-101 (02402-03) G&B-104 (24346-02)
(h) 2451 (i) 2451 (j) 2451 (k) 2451 (l) 2451 (m) 2502	(h) Granular Backfill (i) Aggregate Backfill (j) Granular Bedding (k) Aggregate Bedding (l) Coarse Filter Aggregate (m) Fine Filter Aggregate	3149 & Special Provisions	Two per source before delivery on project	1 per source	60 lb	NA	NA	G&B-001 (02115-03) G&B-101 (02402-03) G&B-104 (24346-02)

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Verification (Acceptance) Testing (See Note 1)		Minimum Companion (Split Lab) Sample (See Notes 2 & 3)		Form No. (See Note 5)
				Rate	Size	Rate	Size	
(a) 2211 (b) 2221	2. Proctor Test (a) Aggregate Base (b) Aggregate Shoulder	2211, 2221, & Special Provisions		(See Note 8) 2005 Spec Book: 1 per source 2013 Spec Book: 1 per source	50 lbs.	1 per project in this category. Obtain split sample from the 1 st verification sample	25 lb.	G&B-303 (24587-01)
				2005 & 2013 Spec Book : For Specified Density: 1/major soil type. 2013 Spec Book: For all other compaction requirements: One Contractor Companion/project				
(c) 2105 2106	(c) Embankment Soil, Granular Borrow, Select Granular Borrow, & Modified Granular Borrow	2105 & 2106	2005 Spec Book: 2013 Spec Book: 1 major soil type (See Notes 7 & 11)	(See Note 8) 1/1,000 yd ³ (CV)		NA	NA	G&B-001 (02115-03) G&B-304 (02140-03)
				1/4,000 yd ³ (CV)				
(a) 2211 (b) 2221	3. Specified Density Test (Sand Cone or other) (a) Aggregate Base (b) Aggregate Shoulder	2211, 2221 & Special Provisions						
(c) 2105 2106	(c) Embankment Soil, Granular Borrow, Select Granular Borrow & Modified Granular Borrow	2105, 2106 & Special Provisions						

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Verification (Acceptance) Testing Rate (See Note 1)	Form No. (See Note 5)
(a) 2211 (b) 2221	4. Dynamic Cone Penetration (DCP) Index Method (a) Aggregate Base (b) Aggregate Shoulder	2211, 2221, & Special Provisions		1 DCP test/500 yd ³ (CV)	G&B-001 (02115-03) G&B-204 (02170-02)
(c) 2215	(c) Full Depth Reclamation (FDR)	3135 & Special Provisions		1 DCP test/3,000 yd ²	G&B-001 (02115-03) G&B-205
(d) 2105 2106	(d) Granular Borrow Select Granular Borrow & Modified Granular Borrow and all other granular materials.	2105, 2106, 3149 & Special Provisions		Roadway Embankment: One DCP test/2,000 yd ³ (CV). Structure Trenches: One DCP test/2,000 yd ³ (CV), with a minimum of one DCP test per 250 feet of each structure length. Test entire layer.	G&B-001 (02115-03) G&B-203 (02170-02)
(a) 2118 (b) 2211 (c) 2212 (d) 2221	5. Moisture Content Test During Compaction (See Note 9) (a) Aggregate Surfacing (b) Aggregate Base (c) Drainable Aggregate Base (d) Shoulder Base Aggregate	2211, 2221, & Special Provisions	2005 Spec Book — 2013 Spec Book 1/1,000 yd ³	2005 Spec book: 1/1,000 yd ³ or 10 tests whichever is less 2013 Spec Book: One Contractor Companion/project	G&B-001 (02115-03) G&B-105 (21850-02)
(e) 2215	(e) Full Depth Reclamation (See Note 9)	2215 or Special Provisions	2005 Spec Book — 2013 Spec Book 1/6,000 yd ²	2005 Spec book: 1/6,000 yd ² 2013 Spec Book: —	
(f) 2105 2106	(f) All embankment materials (See Note 9)	2105, 2106 & Special Provisions	2005 Spec Book — 2013 Spec Book 1/10,000 yd ³	2005 Spec Book 1/10,000 yd ³ 2013 Spec Book One Contractor Companion/project	

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Verification (Acceptance) Testing (See Note 4)		Form No.
				Rate	Size	
2105 2106 2118 2211 2212 2221	6. Percent Crushing		1/Day			G&B-103 (02463) G&B-104 (24346-02)
2105 2106 2118 2206 2211 2212 2221 2451 2502	7. Aggregate Quality (LAR, Insoluble Residue, Lithological Exam & Bitumen Content)	3136, 3138, 3149 & Special Provisions	1/source (See Note 6)	2 per source	30 lb.	
2215	8. Depth Check Full Depth Reclamation (FDR)	3135 or Special Provisions	1/1000 feet	1/3000 feet		

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

General Notes: Sampling and Testing Procedures are found in the Grading and Base Manual in Section 5-692.200. Obtain all gradation, quality and crushing samples after spreading and before compaction.

Modify testing and sampling protocol for increases in Plan quantities as follows:

Time Plan Quantity Increased	Testing and Sampling
Before Collection of first sample.	Reorder sampling to account for additional quantity.
After Collection of first sample, but before sampling is complete.	Complete testing of current lot, and then reorder the sampling using the remaining quantity.
After collection of all original Plan quantity samples.	Order sampling for additional quantity.

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Note 1: Verification gradation samples are not required for 280 yd³ (CV) (500 tons) or less. Report small quantities on Form 02415 or 2403. <http://www.dot.state.mn.us/const/tools/forms.html>.

Note 2: Perform Companion testing using different equipment and personnel from the Verification sample. Obtain the Companion sample as a split sample from the first Agency Verification sample, and include the gradation results on the sample card. Laboratories with AMRL accreditation that are performing the Agency Verification testing are not required to submit companion samples.

Note 3: Companion gradation and proctor, and Verification crushing and aggregate quality samples are not required for 550 yd³ (CV) (1,000 tons) or less.

Note 4:

- Carbonate aggregates require 50 lb. samples for lab testing.
- Submit the initial aggregate quality and crushing sample from the first day's production.
- The crushing test will not be required when the material is crushed from a quarry.
- A second test is required, when the first test fails. Average both tests to determined compliance, when two tests are performed.
- Not all quality and crushing tests are required for each material, see specifications
- Use the table below as a **guideline**, **determination of specific required tests is through the Specifications and/or the Special Provisions.**

Note 5: Tests may be reported on Grading and Base forms or on MnDOT LIMs Reports. Forms are available on the Grading & Base website at: <http://www.dot.state.mn.us/materials/gradingandbase.html>

Note 6: Use the Centrifuge Method (MnDOT Lab. Manual Method 1852) to determine bitumen content.

Note 7: Major soil types are defined in the Triaxial Chart located in the Grading and Base Manual.

Note 8: Required only for specified density.

Note 9: Required during Compaction. For Quality Compaction of Shoulder Surfacing Aggregate (2118 or 2221), the Engineer may replace the moisture testing requirement with time stamped photo documentation of water being applied.

Note 10: Provide gradation test results to the Engineer within the first 500 feet (150 m) of production and within 500 feet (150 m) after a failing gradation.

Note 11: The Contractor may use a one point Proctor, or the estimated optimum moisture content formula (Form G&B- 305) to determine the optimum moisture.

I. Grading and Base Construction Items 2005 and 2013 Spec Book (www.dot.state.mn.us/materials/gradingandbase.html)

Table: Guidelines for Required Crushing and Aggregate Quality Tests					
Material	Crushing	Bitumen Content	LAR	Insoluble Residue	Lithological Exam & Shale Float Test
3136 Drainable Bases	Yes. Not required for quarried sources.	Not applicable	Yes	Yes, if source from a carbonate quarry	Yes, when not from quarried source.
3138 Aggregate for Surface and Base	Yes for Class 5, 5Q and 6. Test waived if material contains recycled at twice the minimum crushing requirement.	Yes, if it contains Bitumen.	Yes, if source is carbonate quarry and does not contain bitumen.	Yes, if source from a carbonate quarry, and does not contain bitumen.	Yes for Class 3, 4, 5, 5Q and 6, when not from quarried rock, and does not contain bitumen.
3149 Granular Material *	Not required for quarried sources. Yes for Stabilizing Aggregate, Fine Aggregate Bedding and Medium Filter Aggregate. Test waived if material contains recycled at twice the minimum crushing requirement.	Yes, if it contains Bitumen	Not applicable	Yes, if source from a carbonate quarry, and does not contain bitumen	Yes for Medium Filter Aggregate
* Note for 3149.2D.2 Granular Materials - Structural Backfill, perform all tests required of 3137.2B3, shear angle test (AASHTO T236) and Proctor.					

Grading and Base Conversion from Volume (CV) to Weight

If possible, always perform a proctor for the material in question to obtain a conversion factor.

Only use the following conversion factor for materials meeting specifications 3138 or 3149 Stabilizing Aggregate. Material may be composed of crushed limestone, granite, gneiss, quartzite, recycled materials or natural gravel. **Do not** use the conversion factor for crushed basalt, taconite, or other heavy or light-weight aggregates. For other materials or gradations contact the Grading and Base Unit.

To convert from volume to weight use the following: **1 yd³ (CV) = 1.8 tons.**

See the Grading and Base Manual section .430 for further explanation.

II. Bituminous Construction Items for Specification 2360

Note: Projects with bituminous tonnage less than or equal to 300 tons (272 metric tons) per day may be accepted on a small quantity basis at the discretion of the Engineer. Retain Form 02415 or Form 2403 in Project File.

(All plant mixed asphalt from Certified Plants)

DEFINITIONS

SAMPLE TYPE	DESCRIPTION	SAMPLE LOCATION DETERMINED BY	SAMPLE TAKEN BY	SAMPLE TESTED BY
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor's QC sample.	Contractor Contractor (mixture) Agency (density cores)	Contractor	Agency
Verification	A sample to assure compliance of the Contractor's Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency's Verification sample provided to the Contractor. The Contractor <u>is required to test this sample</u> . The results <u>shall be used as part of the QC program</u> .	Agency	Agency	Contractor
IAST	The Independent Assurance Sampling and Testing assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

II. Bituminous Construction Items for Specification 2360 (cont.)**A. Pre-Production Sampling and Testing for Specification 2360 Plant Mixed Asphalt****Minimum Sample Sizes:****Quality Sample Size for Lab Submittal:**

Plus #4 aggregate sample for quality testing and Percent Crushing 80 lb. (35 kg)
 Minus #4 aggregate for quality testing 35 lb. (15 kg)
 Bituminous mixture plus 2 Gyrotory specimens for volumetric testing 80 lb. (35 kg)
 Bituminous mixture for TSR testing (option A) 80 lb. (35 kg)
 Bituminous mixture for TSR testing plus 6 Gyrotory specimens (option B) 20 lb. (10 kg)
 Mineral filler. 2 lb (1 kg)
 RAP for Quality Testing 80 lb (35 kg)
 RAS (shingles) for Gradation and Quality Testing 10 lb (5 kg)
 Asphalt Binder 1 qt (1L)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Bituminous Mix Design (QC/QA)	2360	Contractor submits Mix Design Option 1 or Option 2	Option 1 - Laboratory Mix Design: In addition to reviewing the Trial Mix data (JMF), test Contractor's mixture (at optimum asphalt content). Also, evaluate TSR per 2360.2E5a(3). Option 2- Laboratory Mix Design: Review submitted Mix data only.	Approved Mix Design Report
2360	Aggregate Quality Testing (QA only)	2360	Provide 24 hour notice of intent to sample aggregates for quality testing. Agency has the option to monitor sampling. Submits to the Bituminous Engineer or the District Materials Engineer one (1) sample of each non-asphaltic aggregate type or class per source per year. Also submit the asphaltic aggregate material when the mixture contains RAP or RAS. Provide documentation that of all RAS /TOSS (Tear Off Shingle) material is from a MPCA certified supplier.	Test as directed by the Bituminous Engineer or the District Materials Engineer..	Test Report
2360	Mineral Filler (QA only)	2360	One (1) sample per shipment of 50 tons (45 metric tons) or less, unless previously inspected.	Testing as directed by the Engineer or the District Materials Engineer.	Test Report
2360	Additives (QA Only)	2360	Sample blended asphalt binder and additive, 1 qt. (1 L). Sample first shipment of each type of material, then submit one sample per 250,000 gal. (1,000 m3) (approximately 1,000 ton).	Testing as directed by the Engineer or the Chemical Laboratory Director.	Test report

II. Bituminous Construction Items for Specification 2360 (cont.)

B. BITUMINOUS PRODUCTION for Specification 2360

Verification Companion testing from Agency split sample is required to be performed and used as the next QC sample that day.

*Verification Testing

SAMPLE SIZE:

- Aggregate for Gradation (QC/QA) 35 lb. (15 kg)
- Plus #4 Aggregate Type for Quality Testing 80 lb. (35 kg) for each source
- Minus #4 Aggregate Type for Quality Testing 35 lb. (15 kg) for each source
- RAP material for Quality Testing 80 lb. (35 kg) for each source
- RAS (Shingles) for Processed Gradation and Quality Testing 10 lb. (5 kg)
- Mixture Properties (QC/QA) 3 full 6" by 12" cylinder molds for QA 65 lb. (30 kg)
- TSR (QC/QA) 4 full 6" by 12" cylinder molds for QA 90 lb. (40 kg)
- Aggregate Specific Gravity (QC/QA) 90 lb. (40 kg)
- Asphalt Binder (QA) 1 qt (1 L)
- Emulsified Asphalt (QA) ½ gal (2 L)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Aggregate Quality Testing Including aggregate specific gravity (QA Only)	2360		Take additional samples when aggregate qualities approach specification limits or when material variation is observed, take additional field samples as requested by Project Engineer.	Lab report
2360	Moisture Content in Mixture (QC/QA) Lab Manual 1855	2360	Sample and test as directed by the Engineer.	Take additional samples when material variation is observed in RAP or RAS take additional field samples as requested by Project Engineer.	Test Summary Sheet (TSS)

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Asphalt Binder Content, % AC, ADD AC, AC/Total AC ratio (QC/QA, Verification*) Lab Manual 1851, 1852, 1853	2360	(a) Incinerator Oven MnDOT Lab Manual 1853 (b) Chemical Extraction MnDOT Lab Manual 1851 or 1852 REMARKS: Contractor selects one method at the beginning of the project (when material is submitted for Trial Mix Review) and use that method for the entire project. The Contractor and Engineer may agree to change test procedures during the construction of the Project. See Note #1, Note #2 & Note #4. A computer file of the plant's control settings is required every 20 minutes of production.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). The Agency reviews the computer files of the plant's control settings. REMARKS: See Note # 3 & Note #7	TSS
2360	Mixture Properties (QC/QA, Verification*) Maximum Specific Gravity Lab Manual 1807	2360	Contractor performs test 1807 REMARKS: See Note #1, Note #2, & Note #4.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). REMARKS: Note # 3 & Note #7	TSS
2360	Mixture Properties (QC/QA, Verification*) Gyrotory Bulk Specific Gravity - 2 Specimen Average, Lab Manual 1806, 1820	2360	Contractor performs test 1806 REMARKS: See Note #1, Note #2, & Note #6.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). REMARKS: See Note #3 & Note #7.	TSS

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Mixture Properties (QC/QA, Verification*) Adjusted Asphalt Film Thickness (AFT), Air Voids, Fines to effective, CAA, FAA and Gradation. Lab Manual 1203, 1206, 1214, 1808, 1854	2360	Verification Companion testing from Agency split sample is required and used as a QC sample once per day. Bituminous mixes composed entirely of Class A and/or Class B aggregates are not required to be tested for CAA (Coarse Aggregate Angularity). REMARKS: See Note #1, Note #2, Note #4, Note #5, & Note #6. The production start-up testing rates for the CAA and FAA is 1 per 1000 tons for the first 2000 tons. After 2000 tons, 2 test per day for at least two days. Then CAA and FAA at a rate of 1 test per week, if the CAA and FAA exceed the requirements by 8% and 5% respectively, otherwise test daily.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). REMARKS: See Note # 3 & Note #7.	TSS
2360	Core Density and Thickness Lab manual 1810	2360	Contractor cuts two cores at each location. In the laboratory, measure, and saw cores into separate lifts. Sawing of cores into separate lifts is required. Schedule the approximate time of testing during normal project work hours so the Agency may observe and record the saturated surface dry and immersed weight of the cores. A completed Core Density Incentive/Disincentive worksheet is to be submitted to the Laboratory (Agency field or District/Division).	Complete core stationing spreadsheet to determine core locations and then mark all coring locations on the pavement. Once the Contractor has measured and sawed the Agency companion cores transport them to the Agency field lab or District Lab for testing. Transport the cores as soon as possible to the testing lab taking care to prevent damage due to improper handling or exposure to heat. Selects at least one of the two companion cores per lot to test for verification. REMARKS: Note #3 & Note #6.	Core Density Worksheet Core Density Incentive/Disincentive worksheet.
2360	Tensile Strength Ratio (T.S.R.) (QC/QA) Lab Manual 1813	2360	Sample as directed by the Engineer. When testing is required, complete testing within 72 hours after the sample is taken.	Test as directed by the Engineer. When testing is required, complete testing within 72 hours after the sample is taken.	TSR Worksheet

II. Bituminous Construction Items for Specification 2360 (cont.)

<p>C. BITUMINOUS MATERIALS for Specification 2360</p> <p>Only Bituminous Materials from Certified Sources are allowed for use. The most current list of Certified Sources: http://www.dot.state.mn.us/products/index.html</p> <p>Minimum Sample Sizes:</p> <p style="padding-left: 40px;">Quality Sample Size for Lab Submittal:</p> <p style="padding-left: 80px;">Asphalt Binder (QA)/Cutback Asphalt (QA) 1qt (1 L) Metal can with pressure fit lid</p> <p style="padding-left: 80px;">Emulsified Asphalt (QA) ½ gal (2 L) plastic</p>					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Asphalt Binder (QA only)	3151.2	<p><u>Asphalt Supplier</u> QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program.</p> <p><u>During Asphalt Mixture Production</u> Obtain asphalt binder samples from a sampling valve located between the pump and the drum. Sample each type of asphalt binder used in mixture production after 50 tons of mixture has been produced, then sample at a rate of one per 250,000 gal [1,000,000 L]. A minimum of 1 gallon of binder must be drawn and wasted from the sampling valve before the actual sample is drawn. For batch plants, obtain the asphalt binder sample from the weigh pod. Provide asphalt binder sample in clean one L (1 qt) steel container. The Inspector will monitor the sampling the Contractor performs.</p>	<p><u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory.</p> <p><u>During Asphalt Mixture Production</u> Observe contractor personnel taking sample from sampling valve and submit to MnDOT Chemical Lab</p>	2413 Asphalt Sample Identification Card
2201 2355 2356 2357 2514	Emulsified Asphalt (QA only)	3151.2	<p>QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program.</p> <p><u>Tack Coat</u> During mixture production the Contractor will sample first shipment, then submit one sample per 50,000 gal (200,000 L). Sample emulsified asphalt in clean ½ gal (2 L) plastic container with wide screw top and send to MnDOT Chemical Lab within 7 days of sampling.. Sample all emulsified asphalt from the distributor.</p>	<p><u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory.</p> <p><u>Tack Coat</u> Observe contractor personnel taking sample from the distributor and submit to MnDOT Chemical Lab.</p>	2413 Asphalt Sample Identification Card

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2357 2358 2514	Cutback Asphalt (QA only)	3151.2	QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program. <u>Tack Coat</u> During mixture production the Contractor will sample first shipment, then submit one sample per 50,000 gal (200,000 L). Sample emulsified asphalt in clean 1/2 gal (2 L) plastic container with wide screw top and send to MnDOT Chemical Lab within 7 days of sampling.. Sample all emulsified asphalt from the distributor.	<u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory. <u>Tack Coat</u> Observe contractor personnel taking sample from the distributor. Cutback Asphalt should only be used in cold temperature applications with the Engineer's approval. Contact Bituminous Engineering Unit for cold temperature application guidelines.	2413 Asphalt Sample Identification Card

Note #1 All QA test samples shall be from split samples.

If a member of the monitoring team observes the Contractor Test, note and sign under remarks.

The Project Engineer is responsible for:

- 1.) Reviewing control charts & Test summary sheets for accuracy and completeness,
- 2.) Checking sampling and testing procedures,
- 3.) Discussing QC problems with the Contractor,
- 4.) Obtaining Verification Samples

Note #2 For Mixture Quality Management, acceptance will be based on Contractor's test results as verified by MnDOT test results.

Note #3 When a member of a monitoring team observes the Contractor test, note and sign under remarks.

Note #4

How to calculate the number of tests per day	Production Start-up testing rates (first 2000 tons of production)	Production testing rates (after 2,000 tons of mixture produced)
Divide daily tonnage by 500 and round up to next whole number	1 test/ 500 tons	
Divide daily tonnage by 1000 and round up to next whole number		1 test/ 1000 tons

Note #5 MnDOT projects will require the calculated Adjusted Asphalt Film Thickness (AFT). VMA will still be calculated for informational purposes, but will not be used for acceptance criteria. The adjusted AFT will be calculated each time a gradation test is required.

Note #6 Random number generation and determination of random sample location shall be consistent with the MnDOT Bituminous Manual Section 5-693.7 Table A or Section 5 of ASTM D3665. The Engineer may approve alternate methods of random number generation.

Note #7 QA samples retained for 10 calendar days and tested, if needed.

III. Construction Items for Bituminous Specialty Items include the following:

- 2350 Permeable Asphalt Stabilized Stress Relief Course (PASSRC) and Permeable Asphalt Stabilized Base (PASB)
- 2354 Micro-Surfacing
- 2355 Bituminous Fog Seal
- 2356 Bituminous Seal Coat
- 2356 Otta Seal
- 2356 Ultra-Thin Bonded Wearing Course (UTBWC)
- 2357 Bituminous Tack Coat
- 2360 Stone Matrix Asphalt (SMA)

Only Bituminous Materials from Certified Sources are allowed for use. The most current list of Certified Sources: <http://www.dot.state.mn.us/products/index.html>

SAMPLE TYPE	DESCRIPTION	SAMPLE LOCATION DETERMINED BY	SAMPLE TAKEN BY	SAMPLE TESTED BY
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor's QC sample.	Contractor Contractor (mixture) Agency (density cores)	Contractor	Agency
Verification	A sample to assure compliance of the Contractor's Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency's Verification sample provided to the Contractor. The Contractor <u>is required</u> to test this sample. The results <u>shall be used</u> as part of the QC program.	Agency	Agency	Contractor
IAST	The <u>I</u> ndependent <u>A</u> ssurance <u>S</u> ampling and <u>T</u> esting assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test Type	Material Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form No.
(a) 2350 (b) 2350	1. Mix Design (Pre-Production) (a) PASSRC (b) PASB	2350	Complete 1 Job Mix Formula (gradation blend only) per mix Submit to agency: 100 lbs each coarse agg., 35 lbs each fine agg. & 4 qt. asphalt binder	Agency Performs Mix Design	Approved Mix Design Report
(d) 2356	(d) Bituminous Seal Coat	2356	At least two weeks before beginning construction complete 1 design per mix and provide information to Engineer. See specification or special provision. Submit to Agency: 150 lbs aggregate	Review Submitted Mix Design (See Note 1)	Approved Mix Design Report
(e) 2356	(e) UTBWC	2356 UTBWC	Complete and submit 1 design per mix	Review Submitted Mix Design	Approved Mix Design Report
(f) 2360	(f) SMA	2360 SMA	Complete 1 design per mix Submit to Agency: 80 lb. (35 kg) - bituminous mixture plus 6 Gyrotory specimens for TSR testing. 150lbs +4 aggregate from JMF blend for VCA 80 lbs each coarse agg. & 30 lbs each fine agg for quality testing	Review & verify Submitted Mix Design Test as directed by the Engineer	Approved Mix Design Report
(a) 2350 (b) 2350	2. Production Gradation (a) PASSRC (b) PASB Lab manual 1202, 1203	2350	One per 1,000 ton with a minimum of one per day Submit to Agency: 35 lbs Note # 2	1/day	Test Report
(c) 2354	(c) Micro-Surfacing Lab manual 1202, 1203	2354	Stockpile: 1/1,500 tons (min. 1/ day) Machine Hopper: 1/500 tons (min. 1/day) Submit to Agency: 30 lbs	1/1500Ton or min 1 per project whichever is greater.	Test Report

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test Type	Material Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form No.
(d) 2356	(d) Bituminous Seal Coat	2356	Stockpile: 1/1,500 tons (min. 1/day) Chip Spreader Hopper: 1/day Submit to Agency : 30 lbs from Hopper	1/day	Test Report
(e) 2356	(e) Otta Seal Lab manual 1202, 1203	2356			
(a) 2350 (b) 2350	3. Production % Crushing (CAA) (a) PASSRC (b) PASB Lab manual 1214	2350	One per 1,000 with a minimum one per day Submit to Agency: 35 lbs from Belt	1/day	Test Report
(a) 2354	4. Moisture (In Aggregate) (a) Micro-Surfacing Grading & Base manual, 5-692.245.B	2354	Machine Hopper: 1/500 tons (min. 3/day) Submit to Agency: 2 lbs	1/day	Test Report
(a) 2354	5. Sand Equivalence (a) Micro-Surfacing AASHTO T 176	2354	Stockpile or Machine Hopper: 1/500 tons (min. 1/day) Submit to Agency: 25 lbs	1/day	Test Report
(a)2356	6. Flakiness Index (a) Bituminous Seal Coat Lab Manual 1223	2356	Sample taken from first load on first day Submit to Agency: 30 lbs	See Note 1	Test Report
(a) 2356	7. Bituminous Mixture Tests (a) UTBWC Lab Manual 1203, 1807, 1852, 1853, 1854	2356 UTBWC	Tests: % AC, Gradation, Max Gravity, Adjusted AFT Rate: (1/300 tons, min. 1 per day) Note #3: Submit to Agency:20 lbs (1 cylinder from truck box)	1 per day	TSS

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test type	Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form
(b) 2350	(b) PASSRC, PASB Bit Manual	3151	Test: Asphalt spot check Rate: minimum one per day		Test Report
c) 2360	(c) SMA Lab M 1203, 1204, 1205, 1211, 1214, 1806, 1807, 1808, 1813, 1853, 1854, 1855, AI SP-2 AASHTO T305	2360 SMA	Tests: % AC, Gradation, Max Gravity, Bulk Gravity, Voids, VMA, CAA, Draindown, , voids in coarse aggregate (VCA) fines/effective asphalt. Rate: (1/1000 tons, min. 1 per day) Aggregate sp gravity, mix moisture content to be tested as directed by the Engineer See Note: #3 Submit companion 1 per day to agency: 65 lb. (30 kg) 3 full 6" by 12" cylinder molds	Tests: % AC, Gradation, Max Gravity, Bulk Gravity, Voids, VMA, CAA, voids in coarse aggregate (VCA) fines/effective asphalt. See Note # 3 & Note #4	TSS
(b) 2356	8. Asphalt Binder (b) UTBWC	2356 UTBWC 3151	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory. Asphalt Binder: First load, then 1/250,000 gal. 1 qt 1/2 gal* Emulsified Asphalt: First load, then 1/50,000 gal.	Observe contractor personnel taking sample from sampling valve and submit to MnDOT Chemical Lab.	Test Report
(c) 2354 (d) 2356 (e) 2356 (f) 2357	(c) Micro-Surfacing (d) Bituminous Seal Coat (e) Otta Seal (f) Bituminous Tack Coat	2354, 2356, 3151	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory.	First load, then 1 / 50,000 gal. 1/2 gal*	Test Report
(g) 2360	(g) PASSRC, PASB (h) SMA	3151, 2360 SMA	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory. Asphalt Binder (1 qt): First load, then 1/250,000 gal. Note: SMA to be test as in Section C. BITUMINOUS MATERIALS for Specification 2360	Observe contractor personnel taking sample and submit to MnDOT Chemical Lab. Note: SMA to be test as in Section C. BITUMINOUS MATERIALS for Specification 2360.	Test Report

III. Construction Items for Bituminous Specialty Items (Cont.)

Pay Item Number	Test type	Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form
(a) 2354	9. Asphalt Binder Application Rate (a) Micro-Surfacing	2354	Verify Application rate 3/day	Verify Application rate 1/day	
(b) 2355 (c) 2356 (d) 2356 (e) 2357	(b) Fog Seal (c) Bituminous Seal Coat (d) Otta Seal (e) Bit Tack Coat	2355, 2356, 2357	Verify Application rate 1/day	Verify Application rate 1/day	
2399	10. Inertial Profiler	2399	Pass Annual Certification at MNROAD	Perform a side by side comparison with the MnDOT IP once a year.	Profile Summary

***Use plastic containers for Emulsified Asphalt Samples. Send to MnDOT Chemical Lab within 7 days of sampling.**

Note 1: Contractor submits samples to Agency. Agency will test at their discretion, based upon prior experience with submitted aggregate.

Note 2: Run test on gradation sample taken from aggregate belt

Note 3: TSR testing on production mixture is at the discretion of the Engineer.

Note 4: Agency is not required to run draindown testing on QA/Verification samples.

IV. Concrete Construction Items (www.dot.state.mn.us/materials/concrete.html)

The testing rates shown in this Schedule of Materials Control are minimums. All samples shall be taken in a random manner using an appropriate number generator. Take as many tests as necessary to ensure quality concrete. **All field samples shall be taken at the point of placement unless otherwise allowed by the Engineer.**

It is recommended that the Agency Plant Monitor be present during critical pours, such as superstructure or paving concrete (i.e. 3Y33, 3Y36, 3Y46, 3A21).

If any field test fails, reject the concrete or if the Producer makes adjustments to the load to meet requirements, record the adjustments on the Certificate of Compliance and the Weekly Concrete Report. Retest the load and record the adjusted test results. Make sure the next load is tested before it gets into the work.

If batching adjustments are made at the plant, test the adjusted load, before it gets into the work. Continue to test the concrete when test results are inconsistent or marginal.

The first load of concrete for any pour must have passing air content and slump results, prior to placing.

Material not meeting requirements shall not knowingly be placed in the work. If failing concrete inadvertently gets placed in the work, review either the MnDOT Standard Specifications for Construction or contact the Concrete Engineering Unit for monetary deductions recommendations.

It is recommended that the Agency representative continually monitor the progress of all concrete pours in the field and review Certificates of Compliances. It is not a recommended practice to only perform minimum testing requirements and leave the pour.

Should circumstances arise on a project which makes the testing rate impractical, contact the Concrete Engineering Unit.

DEFINITIONS				
	Description	Sample Location Determined By	Sample Taken By	Sample Tested By
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor's QC sample.	Contractor	Contractor	Agency
Verification	A sample to assure compliance of the Contractor's Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency's Verification sample provided to the Contractor. The Contractor <u>is required</u> to test this sample. The results shall be used as part of the QC program.	Agency	Agency	Contractor
IAST	The <u>I</u> ndependent <u>A</u> ssurance <u>S</u> ampling and <u>T</u> esting assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Plant Batching Materials

Remarks:

- (1) All materials must come from certified or qualified sources. All certified sources must state so on the delivery invoice.
- (2) The most current list of certified/approved sources can be found at www.dot.state.mn.us/products.

Sample Sizes:

Cementitious: 5 lb (2 kg)

Admixture: 1/2 pt. (0.25 L) Producer obtains samples from dispensing tubes. Store samples in plastic container.

Water: 1 gal (3.5 L) Store sample in a clean glass or plastic container.

Pay Item No.	Material	Spec. No.	Minimum Required Sampling Rate for Laboratory Testing	Form No.
2301	Portland Cement	3101	For certified ready-mix and concrete paving: 1 sample when the plant is certified. Take an additional sample: 1) At 6 months, if producing Agency concrete, 2) If the plant changes sources, or 3) As the Contract requires. For precast concrete: 1 sample every 3 months during Agency production The Producer obtains and stores the sample in a sealed container provided by the Agency, and includes the supplier's delivery invoice from which the sample is obtained. Take additional samples as directed by the Concrete Engineer	24300 ID Card Cement Samples
2302		3102		
2401		3103		
2405				
2411	Blended Cement	3103		24308 ID Card Fly Ash Samples
2412				
2422				
2452	Fly Ash	3115		
2461				
2506				
2511				
2514	Admixtures (Accelerating, Retarding, Water-Reducing, Air-Entraining, etc.)	3113	For all concrete: 1 sample when the plant is certified. Take additional samples: 1) At 3 month intervals during Agency production, 2) If the plant changes sources, or 3) As the Contract requires. The Producer obtains and stores the sample in a sealed container provided by the Agency. Take additional samples as directed by the Concrete Engineer	2410 Sample ID Card
2519				
2521				
2531				
2533				
2545				
2550				
2554				
2557				
2564				
2565				
	Water	3906	1 sample from any questionable source	2410 Sample ID Card

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Certified Ready-Mix - Concrete Plant Production

Remarks:

- (1) Mix design is provided by MnDOT unless otherwise specified in the Contract.
- (2) All gradation and quality tests require companion samples. Samples taken at location identified on Contact Report located at plant.
- (3) Perform Quality testing as directed by the Concrete Engineer.
- (4) Record all gradation weights in metric.

Minimum Sample Sizes:

Gradation Test:
 3/4" Plus (+19 mm) 25 lb. (12 kg)
 3/4" Minus (-19 mm) 10 lb. (5 kg)
 CA-70 6 lb. (2.5 kg)
 CA-80, Sand 1.1 lb. (500 g)

Moisture Test:
 Coarse Aggregate 2000 g
 Fine Aggregate 500 g

Quality Sample Size for Lab Submittal:
 3/4" Plus (+19 mm) 50 lb. (24 kg)
 3/4" Minus (-19 mm) 30 lb. (15 kg)
 Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2302	Gradation Testing (QC/QA) (5-694.145 and 5-694.148)	2461	When over 20 yd ³ (m ³) of Agency concrete produced per day: Coarse: 1 per 200 yd ³ (m ³) Fine: 1 per 200 yd ³ (m ³) Passing aggregate gradations are required prior to the start of concrete production each day. Performing testing on representative material at the end of the most recent day of production is allowed. Washing the fine aggregate gradation (QC) sample is not required when the result on the -75µm (#200) sieve of the unwashed sample is less than 1.0%, Hold QA (QC companion) samples until they are picked up by the Agency monitor. Discard after 14 calendar days if not picked up. For Contractor Mix Designs utilizing an approved JMF: 1 per 400 yd ³ (m ³) or completed every 4 hours, whichever results in the higher sampling rate.	None	21763 Concrete Aggregate Worksheet (QC/QA) 2449 Weekly Concrete Aggregate Report
2401		3126			
2405		3137			
2411					
2412					
2422					
2452					
2461					
2506					
2511					
2514					
2519					
2521					
2531					
2533					
2545					
2550					
2554					
2557					
2564					
2565					

Certified Ready-Mix - Concrete Plant Production (cont.)					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2302	Gradation Testing (Verification/Companion) (5-694.145 and 5-694.148)	2461	Test the Verification Companion sample. Complete on the day the sample was taken. Wash all fine aggregate Verification Companion samples.	Coarse and Fine: 1 Verification sample per week when Agency production is 1 or 2 days per week. 2 Verification samples per week when Agency production is 3 or more days per week. For small quantities: When less than 25 yd³ (m³) of Agency concrete is produced per week , Verification samples are not required Include verification companion results on Sample ID Card.	2449 Weekly Concrete Aggregate Report
2401		3126			
2405		3137			
2411					
2412					
2422					
2452					
2461					
2506					
2511					
2514					
2519					
2521	Quality Testing including Coarse Aggregate Testing on -#200 (-75µm) (5-694.146)	3126	Test at Contractor's Discretion	1 test each fraction per month Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card
2531		3137			
2533					
2545					
2550					
2554					
2557					
2564					
2565					
		Aggregate Moisture Testing (QC) (5-694.142)			

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production

Remarks:

- (1) Mix Design is Contractor's responsibility with review by MnDOT unless otherwise specified in the Contract.
- (2) Use Certified Ready-Mix - Concrete Plant Production testing rates schedule when:
 - a) The entire concrete paving project is < 3,500 cu. yd (2,900 m³)
 - b) When a secondary plant is used to provide minor work.
- (3) When w/c incentives apply according to 2301:
 - a) Contractor QC Technician and Agency Plant Monitor are required to be present during the entire pour. **If w/c incentives do not apply, the Agency Plant Monitor shall monitor as necessary to ensure compliance with the requirements of the Contract.**
 - b) A certified ready-mix plant shall be **dedicated (provides concrete only to the concrete paving project)**.
- (4) All gradation samples shall be taken in the presence of the Agency, unless otherwise authorized by the Engineer. All samples shall be taken off the belt leading to the weigh hopper unless otherwise approved by the Engineer. All gradation and quality tests require companion samples.
- (5) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:	Moisture Test:	Quality Sample Size for Lab Submittal:	75µm (#200) Coarse Aggregate Sample Size
3/4" Plus (+19 mm)	Coarse Aggregate 2000 g	50 lb. (24 kg)	3/4" Plus (+19 mm)
3/4" Minus (-19 mm)	Fine Aggregate 500 g	30 lb. (15 kg)	3/4" Minus (-19 mm)
CA-70		30 lb. (15 kg)	
CA-80, Sand			

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301	Gradation Testing (QC/QA) (5-694.145 and 5-694.148)	3126 3137	<p>For a concrete paving batch plant:</p> <p>When over 250 yd³ (m³) is produced per day: 1 per 1500 yd³ (m³) or completed 1 per ½ day, whichever results in the higher sampling rate.</p>	<p>Test the first 4 QA samples of production each time the Contractor mobilizes the plant or changes aggregate sources.</p> <p>For a concrete paving batch plant:</p> <p>1 per day on randomly selected samples thereafter.</p> <p>For a certified ready-mix plant:</p> <p>1 per 1000 yd³ (m³) or 1 per week, whichever results in higher sampling rate on randomly selected samples thereafter.</p>	21764 Concrete Aggregate Worksheet JMF
			<p>Performing testing on representative material at the end of the most recent day of production is allowed.</p> <p>If well-graded aggregate incentives apply: Use the Contractor's gradation results for well-graded aggregate incentive calculations as verified by Agency testing</p>		

Concrete Pavement - Concrete Plant Production (cont.)						
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.	
2301	Coarse Aggregate Testing on -#200 (-75µm) (QC/QA) (5-694.146)	3137	Test the first sample and then at least 1 of the next 3 samples on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question. 1 test per day thereafter Test these samples at the plant.	<p>For a concrete paving batch plant: 1 randomly selected sample on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question. 1 test per week thereafter Test these samples at the plant.</p> <p>For a certified ready-mix plant: 1 randomly selected sample on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question. 1 per 1000 yd³ (m³) or 1 per week, whichever results in the higher sampling rate on randomly selected samples thereafter.</p>	21764 Concrete Aggregate Worksheet JMF - Paving	
			<p>For a concrete paving batch plant: 1 per 1000 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate. Take initial samples for aggregate moisture testing within the first 250 yd³ (m³).</p> <p>For a certified ready-mix plant: If w/c incentives apply: 1 per 200 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate. Take initial samples for aggregate moisture testing within the first 100 yd³ (m³).</p>	Concrete W/C Ratio Calculation Worksheet		
	Aggregate Moisture Testing (QC/Verification) (5-694.142)		<p>For a concrete paving batch plant: If w/c incentives do not apply: 1 per 1000 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate.</p> <p>For a certified ready-mix plant: If w/c incentives do not apply: 1 per 200 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate.</p>	<p>If w/c incentives apply: Use aggregate moisture results for determining the water content to calculate the w/c ratio incentive/disincentive. Do not leave samples unattended.</p>		
			Complete the initial moisture content and adjust the batch water prior to the start of concrete production each day. If weather conditions allow, performing moisture testing on representative material at the end of production the prior evening is allowed.			

Concrete Pavement - Concrete Plant Production (cont.)					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301	Water Content Verification Testing (Microwave Oven Verification) (5-694.532)	2301	Obtain the plastic concrete sample at the plant.	<p>If w/c incentives apply: Microwave oven verification testing to verify the w/c ratio is completed in conjunction with Agency aggregate moisture testing.</p> <p>Do not leave samples unattended.</p> <p>For a concrete paving batch plant: Take initial sample for microwave oven verification testing within the first 250 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 1,000 yd³ (m³) is produced in a day.</p>	Concrete W/C Ratio Calculation Worksheet
				<p>For a certified ready-mix plant: Take initial sample for microwave oven verification testing within the first 100 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 400 yd³ (m³) is produced in a day.</p>	
	Unit Weight (QC) (5-694.542)		Test one load of concrete per day at the plant.	None	
	Air Content for Type 3 Concrete (QC) (5-694.541)	2461	Test the first load of concrete at the plant.	None	

Concrete Pavement - Concrete Plant Production (cont.)					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301	Quality Testing including Coarse Aggregate Testing on - #200 (-75µm)	3126 3137	<p>Prior to concrete production: Test the Agency's pre-production sample at the Contractor's discretion</p> <p>During concrete production: Test the #200 (-75µm) on the Quality companion sample the day it was sampled.</p> <p>All other testing is at the Contractor's discretion</p>	<p>Prior to concrete production for the primary concrete plant: Obtain pre-production samples for quality testing at least 16 hours prior to concrete production. Samples may be taken from the stockpile and the #200 (-75µm) test may be performed at the lab instead of at the plant at the discretion of the Engineer. If the Entire Project is < 3,500 cu. yd (2,900 m³), pre-production sampling is not required.</p> <p>During concrete production: 1 randomly selected test each fraction every 20,000 yd³ (m³) of production.</p> <p>Split the Quality sample 4 ways: 1) Provide 2 quarters of the sample to the Producer/Contractor. 2) Test the #200 (-75µm) on the quality sample at the plant the day it was sampled. 3) Submit the remaining sample to the lab for quality testing including testing on the #200 (-75µm) sieve.</p> <p>Identify quality samples with a "Q" and record the QC and QA #200 (-75µm) test results on the Sample ID Card.</p> <p>Identify the Quality Companion samples with a "Q".</p> <p>See additional requirements for first sand quality sample under ASR Testing.</p>	2410 Sample ID Card
2301	Alkali Silica Reactivity (ASR) Testing	2301	None	<p>1 per paving project per sand source</p> <p>Provide one 5 lb sample of: 1) cement, and 2) supplementary cementitious material (fly ash or slag), 3) with the first sand quality.</p> <p>Write "Project Specific ASR Testing" on all 3 Sample ID cards.</p> <p>If the Entire Project is < 3,500 cu. yd (2,900 m³), ASR testing is not required.</p>	2410 Sample ID Card 24300 ID Card Cement Samples 24308 ID Card Fly Ash Samples

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production (cont.)						
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing		
2301	Coarse Aggregate Quality Testing for Incentive/Disincentive	3137	Test at Contractor's discretion	<p>If coarse aggregate quality incentives apply: Test the Class B aggregates for % absorption and Class C aggregates for % carbonate including any other tests necessary to make those determinations. Sample the 2 largest fractions in accordance with the following table and 2301:</p>	2410 Sample ID Card Coarse Aggregate Quality Incentive/Disincentive Worksheet	
				Coarse Aggregate Quality Incentive/Disincentive Sampling Rates		
				Plan Concrete cu. yd [cu. m]		Samples per fraction (n)
				3,500 – 7,500 [2,900 – 6,250]		3
				7,501 – 10,000 [6,251 – 8,500]		5
				10,001 – 25,000 [8,501 – 21,000]		10
				25,001 – 50,000 [21,001 – 42,000]		15
> 50,000 [42,000]	20					
Identify incentive samples on the Sample ID Card with “I/D”						

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Materials (Refer to Metallic Materials and Metal Products for sampling requirements for concrete reinforcement.)

Sample Sizes:

Joint Materials:

Hot Poured Elastomeric: 5 lb. (2.26 kg)

Take samples from application wand, store in steel (1 gal) container.

Preformed Elastomeric: 6 ft (2 m)

Silicone Joint Sealer: 1 pt. (0.5 L)

Store sample in steel container.

Preformed: 2 ft²(0.25 m²)

Curing Materials:

Burlap:

1 yd² (m²)

Paper and Plastic:

2 ft²(0.25 m²)

Membrane Compound

1 qt. (1 L)

If sampling is required, materials must be thoroughly stirred or agitated immediately prior to taking sample. Store sample in steel container and cover immediately.

Pay Item No.	Material	Spec. No.	Minimum Required Field Sampling Rate	Form No.
2301	Preformed	3702	Visual Inspection	2410 Sample ID Card
2302	Preformed Elastomeric Type	3721	1 per lot	
2401	Silicone Joint Sealer	3722	Only joint materials from qualified sources are allowed. The most current lists can be found at www.dot.state.mn.us/products	
2514	Hot Poured Elastomeric Type	3723		
2521		3725		
2531	Burlap	3751	Visual Inspection	
2301	Paper	3752	Visual Inspection - Must be white opaque	
2302	Membrane Curing Compound	3754	Visual Inspection – Use only Pre-Approved Curing Compounds. Refer to the approved products list of curing compounds for pre-approved lots at http://www.mtrapps.dot.state.mn.us/CuringCompoundProducts/curingcompounds.aspx	
2401		3754AMS		
2411		3755		
2514	Plastic	3756	Visual Inspection -Must be white opaque and free from holes.	
2520			A Certificate of Compliance shall be submitted to the Project Engineer from the Manufacturer certifying that the plastic complies with AASHTO M171.	
2521				
2531				
2533				

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Bridges and General Concrete			
Pay Item No.	Test Type	Spec. No.	Agency Testing
2302	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461	1 per 100 yd ³ (m ³) Test first load each day per mix Test when adjustments are made to the mix.
2401			
2405	Slump (Verification) (5-694.531)	2461	1 per 100 yd ³ (m ³) Test first load each day per mix Test as necessary to verify passing slump
2411			
2412	Concrete Temperature (Verification) (5-694.550)	2461	No slump testing required for slipform placement Record temperature each time air content, slump, or strength test specimen is performed/fabricated.
2422			
2452	Compressive Strength (Verification) (5-694.511)	2461	1 cylinder (28-day) per 100 yd ³ (m ³) 1 cylinder (28-day) per day for sidewalk and curb and gutter Cast up to three (3) control cylinders. Any additional control cylinders are the responsibility of the Contractor. MnDOT standard cylinder mold size is 4 x 8 inch (100 x 200 mm). If aggregate has a maximum size greater than 1-1/4 inch (31.5 mm), use 6 x 12 inch (150 x 300 mm) molds.
2461			
2506	Form No. 2448 Weekly Concrete Report If concrete quantities on the entire project total < 100 yd ³ (m ³), document the test results Weekly Concrete Report or on Form 02415 or Form 2403 Inspection Report for Small Quantities.		
2511			
2514			
2520			
2521			
2531			
2533			
2545			
2550			
2554			
2557			
2564			
2565			

Concrete Field Testing – Cellular Concrete			
Pay Item No.	Test Type	Spec. No.	Agency Testing
2519	Compressive Strength (Verification) (5-694.511)	2461 2519	1 set of 4 cylinders (28-day) per day 4 x 8 inch (100 x 200 mm) cylinders shall be filled in two equal lifts, do not rod the concrete, lightly tap the sides, cover and move to area with minimal or no vibration. Do not disturb for 24 hours.
			Form No. 2409 ID Card Concrete Test Cylinder

Concrete Field Testing – Concrete Pavement					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2301	Air Content Before Consolidation for Type 3 Concrete (QC/QA) (5-694.541)	2461	1 per 300 yd ³ (m ³) or 1 per hour, whichever is less Test first load each day per mix	1 correlation air test per day	2448 Weekly Concrete Report
	Air Content After Consolidation for Type 3 Concrete (QC/QA) (5-694.541)	2461	Test 1 air content per ½ day of slip form paving to establish an air loss correction factor (ACF). See Special Provisions for additional information.	1 air test per day	
	Slump (QC/QA) (5-694.531)	2461	For fixed form placement: 1 per 300 yd ³ (m ³) and as directed by the Engineer Test first load each day per mix For slipform placement: No slump testing is required	For fixed form placement: 1 slump test per day For slipform placement: No slump testing is required	
	Concrete Temperature (QC/QA) (5-694.550)	2461	Record temperature each time air content, slump or strength test specimen is performed/fabricated by the Contractor.	Record temperature each time air content, slump or strength test specimen is performed/fabricated by the Agency.	
	Flexural Strength (QC) (5-694.521)	2301	1 beam (28-day) per day - Make additional control beams as necessary. - Control beams shall be made <u>within the last hour</u> of concrete poured each day. Fabricate beams, deliver beams to curing site, and clean beam boxes. Cylinders may be substituted for beams at the discretion of the Engineer	Supply beam boxes, cure, and test beams. MnDOT standard beam box size is 6" x 6" x 20" unless other sizes or types are approved by the Concrete Engineer.	2162 Concrete Test Beam Data
	Concrete Pavement Texture (QC)	2301	1 per 1000 linear feet per lane of concrete pavement at locations determined by the Agency. All adjoining lanes shall be tested at the same location if paved at the same time. The Contractor supplies all materials necessary to perform the required testing.	Determine texture testing locations using random numbers.	Concrete Texture Worksheet

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement (cont.)					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2301	Thickness (QC/Verification)	2301	The Contractor drills concrete cores at locations determined by the Agency. The Contractor probes the plastic concrete at locations determined by the Agency.	Determine probing and coring locations using random numbers. Initial pavement at core locations and re-initial the sides of specimens after coring to clearly verify their authenticity.	24327 Field Core Report Probing and Coring Report
2301	Surface Smoothness	2301	Contractor provides MnDOT certified inertial profiler results for the entire project as required by the Contract.	None	Concrete Profile Summary Worksheet

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing - Low Slump Concrete for Bridge Deck Overlays

Remarks:

- (1) Mix design is provided by MnDOT on the back of the Form 21412 Weekly Report of “Low Slump Concrete” unless otherwise specified in the Contract.
- (2) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (3) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

CA-70 6 lb. (2.5 kg)
 Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

Coarse Aggregate 50 lb. (24 kg)
 Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2404	Gradation and Quality Testing <u>including</u> Coarse Aggregate Testing on -#200 (-75µm) (QC/Verification) (5-694.145, 5-694.146) and 5-694.148))	3126	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source No quality test results are required. Test companion samples at Contractor’s discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site. Identify quality samples with a “Q” on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card 21412 Weekly Report of “Low Slump Concrete”
		3137			
	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day	
		2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day For concrete from a concrete-mobile, allow mix to hydrate 4 to 5 minutes before slump test to assure all cement is saturated.	
	Compressive Strength (Verification) (5-694.511)	2461	None	1 cylinder (28-day) per 30 yd ³ (m ³)	2409 ID Card Concrete Test Cylinder

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement Repair (CPR) for 3U18

Remarks:

- (1) Mix design is provided in accordance with MnDOT Spec 3105 unless otherwise specified in the Contract.
- (2) Testing rates apply to concrete that is produced on site.
- (3) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (4) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:	
3/4" Minus (-19 mm)	10 lb. (5 kg)
CA-70	6 lb. (2.5 kg)
CA-80, Sand	1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

Fine Aggregate	30 lb. (15 kg)
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Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Gradation and (QC/Verification) (5-694.145 and 5-694.148)	3126 3137	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source. Test companion samples at Contractor's discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site.	2410 Sample ID Card
	Quality Testing including Coarse Aggregate Testing on - #200 (-75µm) (5-694.146)	3126 3137	No quality test results are required.	1 test each aggregate fraction per source The Agency may use the gradation results for the Quality Samples as a substitute for 1 required field gradation. Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card
	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day.	2448 Weekly Concrete Report

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement Repair (CPR) for 3U18 (cont.)

Remarks:

- (4) Mix design is provided in accordance with MnDOT Spec 3105 unless otherwise specified in the Contract.
- (5) Testing rates apply to concrete that is produced on site.
- (6) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (5) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:
 3/4" Minus (-19 mm) 10 lb. (5 kg)
 CA-70 6 lb. (2.5 kg)
 CA-80, Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Slump (Verification) (5-694.531)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day. Allow mix to hydrate 5 minutes before slump test to assure all cement is saturated.	2409 ID Card Concrete Test Cylinder
	Compressive Strength (Verification) (5-694.511)	2461	None	1 cylinder (28-day) per 30 yd ³ (m ³)	

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing –Dowel Bar Retrofit (DBR)

Remarks:

- (1) Mix Design is Contractor's responsibility with review by MnDOT unless otherwise specified in the Contract.
- (2) Testing rates apply to concrete that is produced on site. (Not from a certified ready-mix plant.)
- (3) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (4) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

CA-80, Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

Coarse Aggregate 50 lb. (24 kg)

Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Gradation and Quality Testing including Coarse Aggregate Testing on - #200 (-75µm) (QC/Verification) (5-694.145, 5-694.146) and 5-694.148)	3126 3137	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source. No quality test results are required. Test companion samples at Contractor's discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site. Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card
Dowel Bar Retrofit Material Compressive Strength (Verification) (5-694.511)		2301 2302	None	During the pre-production test operations: 1 set of 3 cylinders tested at a rate as directed by the Engineer. Testing may need to be repeated if any problems with the dowel bar retrofit material are encountered. First day of production: 1 set of 3 cylinders tested at a rate as directed by the Concrete Engineer. After the first day of production: 1 cylinder per day during production tested at rate determined by Engineer to determine opening to traffic strength.	2409 ID Card Concrete Test Cylinder

V. Landscaping and Erosion Control Items

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2105 2571 2575	1. Manufactured Topsoil borrow ^a Salvaged Topsoil (stockpiled)	3877.2	None	From each source: One composite sample for the first 765 m ³ (1,000 Cu yd). One composite sample for each additional 2,300 m ³ (3,000 Cu yd). Small quantities under 75 m ³ (100 Cu yd.), no sample required. One composite sample for each stockpiled topsoil, test for fertility.	10 kg (20 lb.)	^a Test results showing meets specifications. Testing for all topsoil for fertility by Contractor at Certified Soils Lab. Sampling shall be done once source is identified or existing topsoil is stockpiled.
2571 2575 2577	2. Plant Stock & Landscape Materials ^b	3861 and 2571.2A1	Field Inspection at Job Site, submit itemized report for each shipment ^c .			^b Preliminary inspection will not be done at the source. Material must be in accordance with the Inspection and Contract Administration Guidelines for MnDOT Landscape Projects. ^c Utilize "Inspection and Contract Administration Guidelines for MnDOT Landscape Projects" to determine and measure minimum and maximum criteria thresholds. The following documentation must be provided: 1. A MnDOT Certificate of Compliance for Plant Stock, Landscape Materials, and Equipment 2. A valid copy of a nursery stock (dealer or grower) certificate registered with the MN Dept. of Agric. And/or a current nursery certificate/license from a state or provincial Dept. of Agric. for each plant stock supplier. 3. A copy of the most recent Certificate of Nursery Inspection for each plant stock supplier. 4. Plant material shipped from out-of-state nursery vendors subject to pest quarantines must be accompanied by documentation certifying all plants shipped are free of regulated pests. 5. Bills of lading (shipping documents) for all materials delivered. 6. Invoices for all materials to be used. 7. Each bundle, bale, or individual plant must be legibly and securely labeled with the name and size of each species or variety.
2502 2573 2575 2577	3. Erosion Control Blanket ^d	3885	Visual Inspection	Random - See Footnote ^d		^d Check Web site for list of approved products.. www.dot.state.mn.us/products

V. Landscaping and Erosion Control Items (cont.)

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2573 2577	4. Erosion Control Netting ^e	3885	Visual Inspection			^e Check Web site for list of approved products. www.dot.state.mn.us/products
2573	5. Silt Fence ^f	3886	Check Product Label. Obtain Certificate of Compliance with MARV values			^f Check Approved/Qualified Products List (A/QPL) of accepted geotextiles www.dot.state.mn.us/products
2573	6. Flotation Silt Curtain ^g	3887	Visual Inspection			^g Accepted, based on manufacturers' certification of compliance. Check weight of fabric.
2573 2575	7. Erosion Stabilization Mat ^h	3885	Visual Inspection			^h Check Web site for list of approved products. www.dot.state.mn.us/products
2573	8. Filter Logs	3897	Visual Inspection	None		
2573	9. Flocculants ⁱ	3898	Visual Inspection	None		ⁱ Certificate of Compliance and MSDS to the Engineer.
2571 2575	10. Fertilizer ^j	3881	Visual Inspection			^j Bagged: Inspected on the basis of guaranteed analysis. Rate based on fertility analysis of slope dressing/topsoil. Bulk: Inspector to obtain copy of invoice of blended material stating analysis. Check the type specified.
2571 2575	11. Agricultural Lime ^k	3879	One gradation test for each 180 Metric Ton (200 ton)			^k Contractor must supply amount of ENP (Equivalent Neutralizing Power) for each shipment.
2575 2577	12. Mulch Material A. Type 3 Mulch - Certified Weed Free (Certified sources only) ^l	3882	Visual Inspection, Check if from Certified Vendor by Minnesota Crop Improvement Association. Must be tagged, grain straw only.			^l Certified mulch will be indicated by label.

V. Landscaping and Erosion Control Items (cont.)

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2571 2575 2577	13. Mulch Material B. Type 6 Mulch – Woodchips	3882	Visual Inspection, one gradation per supplier. Obtain Certificate of Compliance.	Gradation 1/10,000 yd ³ per supplier.		All wood chips supplied by a supplier outside the Emerald Ash Borer quarantine area or have an Emerald Ash Borer Compliance Agreement with the MDA.
2502 2575 2577	14. Seeds A. Seeds (Certified Vendors Only) (Mixes 22-000 and 25-000 series) ^m	3876	Check for Certified Vendor tag from Minnesota Crop Improvement Association. If materials are on hand and past the twelve months, testing must be done.			^m Periodic sampling taken by Office of Environmental Services. Any moldy or insect contaminated seed must be rejected.
2502 2575 2577	14. Seeds B. Native Seed (Mixes 30-000 series) certified seed only ⁿ	3876	Check if from Certified Vendor by Minnesota Crop Improvement Association. Must be tagged. If materials are on hand and past the twelve months, testing must be done.			ⁿ Certified seed will be indicated by label on containers. Reject all moldy or insect contaminated seed. Periodic sampling taken by Office of Environmental Services.
2575	15. Sod ^o	3878	A certified tag by Minnesota Crop Improvement Association for Salt tolerant sod. Final Visual Inspection at site.			^o A Certificate of Compliance must be furnished by the producer to the Engineer for the type of sod supplied showing correct grass varieties.
2571 2575	16. Compost A. Compost Certified Source ^p	3890	Visual Inspection			^p Check Approved/Qualified Products List (A/QPL), retain Certificate of Compliance.
2571 2575	17. Compost B. Compost Non-Certified Source ^q	3890	Inspection of source 6 weeks prior to delivery.			^q Retain Certificate of Compliance, 6 weeks prior to delivery.
2575	18. Hydraulic Soil Stabilizer ^r	3884		None		^r Check Approved/Qualified Products List (A/QPL). Installer needs to show certificate of training.

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2401	Asphalt Plank	3204	Visual Inspection	1 per 1,000 plank or less of each thickness in each shipment	3 – 1 m (yd) pieces samples from different planks	
2131	Calcium Chloride	3911	Visual Inspection	Liquid: 1 per 40,000 L (1 per 10,000 gal) Dry: 1 per shipment	0.5 L (1 pint) or 0.5 kg (1 lb.) in Plastic Container	
2131	Magnesium Chloride	3912	Visual Inspection	1 per 40,000 L (1 per 10,000 gal.)	0.5 L (1 pint) in Plastic Container	
2331	Hot-Pour Crack Sealant for Crack Sealing/Filling	3719 3723 3725	Visual Inspection	1 per lot. Take samples from application wand. Use caution when handling hot containers	2.26 kg (5 lb.) in a 1 gal steel container.	
2331	Pavement Joint Adhesive	Special Provisions	Visual Inspection	1 per lot. Take samples from application wand. Use caution when handling hot containers	2.26 kg (5 lb.) in a 1 gal steel container	2410 Sample ID Card –including manufacturer and lot number
2481	Waterproofing Materials Membrane Waterproofing System	3757	Visual Inspection	1 per shipment (Membrane Only)	0.1 m ² (1 Sq Ft)	Only waterproofing systems from qualified sources are allowed for use. The most current list can be found at www.dot.state.mn.us/products Membrane Waterproofing System: The manufacturer shall submit a one square foot sample of the membrane along with a letter of Certification and test results stating that the membranes meet the requirements of this specification. Other components of the waterproofing system do not need to be sampled for testing.

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2481	Waterproofing Materials Three Ply System Asphalt Primer	3165	Visual Inspection	1 per shipment	0.5 L (1 pt.) in steel container	
2481	Waterproofing Materials Three Ply System Waterproofing Asphalt	3166	Visual Inspection	1 per shipment	0.5 L (1 pt.) in steel container	
2481	Waterproofing Materials Three Ply System Fabric	3201	Visual Inspection	1 per shipment	1 m ² (1 Sq yd)	
2582	Waterborne Latex Traffic Marking Paint.	3591	Visual Inspection	1 per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance. Only traffic marking paints from Qualified Products List are allowed for use. The most current Qualified Products list can be found at www.dot.state.mn.us/products
2582	Epoxy Traffic Paint	3590	Visual Inspection	1 Part A per lot 1 Catalyst Part B per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance. Only traffic marking paints from Qualified Products List are allowed for use. The most current Qualified Products list can be found at www.dot.state.mn.us/products
2582	Traffic Marking Paint	Special Provisions	Visual Inspection	1 Part A per lot 1 Catalyst Part B per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance. Only traffic marking paints from Qualified Products List are allowed for use. The most current Qualified Products list can be found at www.dot.state.mn.us/products For traffic marking paints other than Waterborne Latex and Epoxy. See Special Provision for Qualified Products List.
2564	Non-Traffic Striping Paints	3500 Series Special Provisions	Visual Inspection		0.5 L (1 pint)	Form 02415 List batch numbers and retain Certification of Compliance. For all others, see Special Provisions. Send color sample to Chemical Laboratory for color matching.

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2478	Bridge Structural Steel Paint	3520	Visual Inspection	Certificate of Compliance with each batch/lot for each component of the paint system to the Engineer. Provide a color "Draw Down" sample to the MnDOT Chemical Laboratory for verification of the finish coat color.		Form 02415 List batch numbers and retain Certificate of Compliance. Only paints from Approved Products List are allowed for use. The most current Approved Products List can be found at www.dot.state.mn.us/products
	Exterior Masonry Paint	3584	Visual Inspection	1 per lot Provide a color "Draw Down" sample to the MnDOT Chemical Laboratory for verification of the finish coat color.	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance Only paints from Approved Products List are allowed for use. The most current Approved Products List can be found at www.dot.state.mn.us/products
	Noise Wall Stain	Special Provisions	Visual Inspection	Certificate of Compliance for each batch/lot of paint. Provide a color "Draw Down" sample to the MnDOT Chemical Laboratory for verification of the finish coat color.		Form 02415 List batch numbers and retain Certificate of Compliance Only paints from Approved Products List are allowed for use. The most current Approved Products List can be found at www.dot.state.mn.us/
2582	Drop-on Glass Beads	3592	Visual Inspection	1 per lot	1 L (qt.)	Form 02415 List batch numbers and retain Certificate of Compliance Only glass beads from Qualified Products List are allowed for use. The most current Qualified Products List can be found at www.dot.state.mn.us/products
2502 2581 2582	Pavement Marking Tape	3354 3355 Special Provisions	Visual Inspection	1 clean sample of each color per lot	3 m (3 yds.)	Form 02415 List batch numbers and retain Certificate of Compliance. Only pavement marking tape from Qualified Products List are allowed for use. The most current Qualified Products List can be found at www.dot.state.mn.us/products

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2540 2563 2564 2565 2582	Signs and Markers	3352	Visual Inspection	None unless material suspect		Form 02415 Only Signs and Markers from Qualified Products List are allowed for use. The most current Qualified Products List can be found at www.dot.state.mn.us/products

VII. Metallic Materials and Metal Products

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2554	1. Guard Rail A. Fittings - Splicers, Bolts, etc.	3381	Visual Inspection	Bolts: 2 Post bolts and 4 splice bolts with nuts for each 1,000 units or less.		Form 02415 or 2403 To be approved before use. Materials from H&R may be pre-sampled and tested. Call the MnDOT inspector at 218-846-3613 to see if material has been approved. For non-pre-tested, submit laboratory samples at required rate. For small quantities, lab samples are not required, but document on Form 02415 or 2403 and maintain in project file. Small Quantities: Rail Sections - 20 or less Terminals - 10 or less Post Bolts - 100 or less, Splice Bolts - 100 or less
2554	1. B.i. Non-High Tension Guard Rail Cable	3381	Visual Inspection	1 sample from each spool	1.2 m (4 ft)	Form 02415 or 2403 See VII.1.A.
2554	1. B.ii. High Tension Guard Rail Cable	Special Provisions	Visual Inspection	None, unless material is suspect (see note)	1.2 m (4 ft)	Sample at the rate of 1/50,000 ft. if the strand appears damaged or suspect (Accepted as part of system)
2554	1. Guard Rail C. Structural Plate Beam	3382	Visual Inspection	One sample from one edge of each 200 rail sections or one sample of each 100 terminal sections	Full depth x 0.25 m (full depth x 10')	Form 02415 or 2403 See VII.1.A.
2554	D. Plate Beam Guide Posts	3382	Visual Inspection	None, unless material is suspect		Form 02415 or 2403
2554	E. High Tension Guide Posts	Spec. Provisions	Visual Inspection	None, unless material is suspect		Form 02415 or 2403 (Accepted as part of system)

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2554 2564	2. Steel Sign Posts	3401	Visual Inspection & Certification from Contractor of compliance with Domestic source requirement under 1601, if applicable.	Two posts per shipment of each mass per unit length. Submit shortest full sized length of each weight, not a scrap piece.	See note	Form 02415 or 2403 Check domestic steel requirement under 1601 No Samples for project quantities less than 20
2554 2557	3. Posts for Traffic & Fence A. Steel fence posts, brace bars, and rails	3403 3406	Visual Inspection	One sample per 500 pieces. Submit full length for posts used in the ground (line, terminal, "C" and anchor posts), and 5' length of top rail and brace bar.		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance and certified mill analysis in project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence B. Components: includes cup, cap, nut, bolt, end clamp, tension band, truss rod tightener, hog ring, tie wire, tension stretcher bar, truss rod, clamp, & tension wire	3376	Visual Inspection	1 each of cup, cap, nut, bolt, end clamp, tension bands, truss rod tightener, 12 hog rings, 6 tie wires, 1 tension stretcher bar; 1 truss rod, cut to 2-foot min. with threaded section, 3 feet of tension wire.		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence C. Gates	3379	Visual Inspection	No sample required. See notes.		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence D. Barbed Wire	3376	Visual Inspection.	One sample per 50 rolls	1 m (3 ft)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for cert. form on right side of page, www.dot.state.mn.us/materials/lab.html

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2557	3. Fence E. Woven Wire Fabric	3376	Visual Inspection	One full height sample per 50 rolls	1 m (3 ft)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for cert. form right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence F. Chain Link Fabric	3376	Visual Inspection	One full height sample for each 5,000 ft of fencing.	0.3 m (1 ft)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2402	4. Water Pipe and other Piping Materials	3364, 3365, 3366 & Special Provisions				Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. To be identified & tested if necessary prior to use. See Special Provisions.
2201 2301 2401 2405 2411 2412 2433 2452 2472 2514 2531 2533 2545 2564	5. Reinforcing Steel A. Bars – Uncoated	3301	Visual Check for Size and Grade Marking	No Field Sample Necessary		Form 02415 or 2403 For Uncoated bars - Retain Certificate of Compliance and Certified Mill Analysis in Project File.

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2201 2301 2401 2405 2411 2412 2433 2452 2472 2514 2531 2533 2545 2564	5. Reinforcing Steel B. Bars - Epoxy Coated	3301	Visual Check for Size and Grade Marking and "Inspected" tag	One sample (1 bar) of each size bar for each day's coating production	1 m (3 ft)	Form 02415 or 2403 For Epoxy-Coated bars, steel will be tagged "Inspected" when it has been sampled and tested by MnDOT prior to shipment, and it will be tagged "Sampled" when testing has not been completed prior to shipment. If the Epoxy-Coated bars are not tagged "Sampled" or "Inspected", submit samples with copies of the, Certificate of Compliance, and Certified Mill Analysis. Retain originals of the Certificate of Compliance and Certified Mill Analysis in the project file.
2401	5. Reinforcing Steel C. Bars Stainless Steel	Special Provisions		One sample (2 Bars) per heat per bar size	1 m (3 ft)	Submit copies of mill test reports with samples, retain originals in project file
2401 2411 2452 2472 2564	5. Reinforcing Steel D. Spirals	3305		One per shipment	1 m (3 ft)	Same as 5.B
2201 2301 2401 2411 2412 2472 2531	5. Reinforcing Steel E. Steel Fabric	3303	Visual Inspection	No Field Sample Necessary		Retain Certificate of Compliance in project file.
2201 2301 2401 2411	5. Reinforcing Steel F. Dowel Bars	3302		One Dowel Bar from each shipment	Full Size Dowel Bars	For all types of dowels – Each project shall have a Certificate of Compliance from the Manufacturer certifying that all materials used in fabrication of the dowel bars and baskets comply with all applicable specifications. The Manufacturer shall maintain all records necessary for certification by project. The Certificate of Compliance shall be submitted to the Project Engineer.

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2401 2405	5. Reinforcing Steel G. Prestressing or Post-Tensioning Strand	3348		One sample (2 strands) from each heat (see Notes)	1.8 m (6 ft)	Submit one copy of mill certificate and one copy of the stress-strain curve representative of the lot with the samples. For most manufacturers, a heat equals a production lot, and an individual lot, pack, or reel is a subset of a heat/production lot.
2402 2506 2565	6. Drainage and Electrical Castings	3321 2471 2565	Visual Inspection	All castings: Three tensile bars to be cast with each heat at Foundry and submitted to the lab by an approved Foundry*. See 3321.		Form 02415 or 2403 Call Maplewood Laboratory at 651-366-5540 for list of approved foundries, or see website. Inspect in the field and retain Form 02415 or 2403 in project file, showing name of foundry and quantity
2401 2402 2411 2433 2545 2554 2564 2565	7. Anchor Rods (Cast in Place)	3385 3391 3392	Check Approved/Qualified Products list, mill certifications, and visual inspection at the project site.	Pre-approved (see notes) or one complete anchor rod assembly including nuts and washers from each lot supplied.		Pre-approved system requires supplier to submit a sample to the Department yearly for each anchor rod grade. Test results of sample must verify compliance to product specifications.
2401 2402 2411 2433 2545 2554 2564 2565	8. Structural Fasteners, both coated and uncoated	3385 3391 3392	Visual inspection and verify material is on APL/QPL, or submit sample for verification testing if not on APL/QPL	Pre-approved (see notes) or two complete assemblies for each size, length, diameter, grade and finish, per increment of 1000 or fraction thereof		Pre-approved system requires the supplier to submit a sample yearly for each fastener size, grade and finish. Test results must verify compliance to specifications. If not on the APL/QPL, submit two complete assemblies for each size, length, grade and finish per increment of 1000 or fraction thereof of fasteners supplied for the project, including nuts and washers from each lot supplied. Obtain passing test results before installation.
2401 2411 2433	9. Anchorages (Drilled In)	Special Provisions	Visual Inspection	No laboratory samples required		Note: Before installation, verify that anchorages are on the qualified products list www.dot.state.mn.us/products

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402	10. Structural Steel A. For Steel Bridge – Beams, Girders, Diaphragms, etc.	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402 2405	10. Structural Steel B. For Concrete Girders-Diaphragms and sole plates	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel C.. Expansion joints	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel D. Steel Bearings	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag . An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402	10. Structural Steel E. Railing-Structural tube and ornamental	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel F. Drainage Systems	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel G. Protection Angles	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2564	11. Overhead Sign structures	2564 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag . An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2545	12. High Mast Lighting Structures	2545 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag . An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2565	13. Monotube Signal Structures	2565 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag . An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2403 2422 2452 2521 2540 2545 2554 2557 2564	1. Timber, Lumber Piling & Posts	3412 to 3471 & 3491	Visual Inspection			Form 02415 or 2403 Untreated materials shall be inspected in the field and the results reported on Form 02415 or 2403. Treated materials shall be Certified on the Invoice or Shipping Ticket. Material is inspected and stamped by an Independent Agency as per Specification 3491. Contact Laboratory for additional information.
2402 2405 2557 Many	2. Miscellaneous pieces and Hardware (Galvanized)	3392 3394		3 samples of each item per shipment. Sample critical items only. (Critical items are load bearing, structurally necessary items.)	Three of each type.	Form 02415 or 2403 Will carry "Inspected" tag if sampled and tested prior to shipment. No sample necessary if "Inspected".
2504	3. Insulation Board	3760	Visual Inspection	None		Form 02415 or 2403
2402	4. Laminated Elastomeric Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.
2402	4. Plain Elastomeric Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.
2402	4. Cotton Duck Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.

**Schedule of Materials Control
IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete**

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402 2422 2501 2503 2506	1. Corrugated Metal Products A. Culvert Pipe Underdrains Erosion control Structures	3225 thru 3229, 3351 and 3399	Visual Inspection: Check for good construction, workmanship, finish requirements and shipping			Form 02415 or 2403 Make certain pipe is Certified on Invoice, retain certificate of compliance and certified mill analysis in project file
2501	1. Corrugated Metal Products B. Structural Plate	3231	Visual Inspection: Invoice shall include notation that material described is in accordance with fabricator's Certificate and Guarantee			Same as 1.A
2501	1. Corrugated Metal Products C. Aluminum Structural Plate	3233				Retain certificate of compliance and certified mill analysis in project file
2503 2506	2. Clay Pipe	3251	No samples required for less than 100 pieces	1 sample per 200 pieces of each size.	Full Size Pipe	Form 02415 or 2403
2501 2503 2506	3. Concrete Pipe A. Reinforced Pipe and Arches, Precast Cattle Pass Units, and Sectional Manhole Units	3236	Field Inspection: Check for damage and defects. Check dimensions as required. Check for producer's "Certified" stamp and signature on the certification document.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Form 02415 or 2403 For Concrete Pipe Both A & B: Product will be certified by producer, only spot checks are done by plant inspector. Make certain the invoice or certification document is signed and the product has the required markings. Maintain Form 2403 or 02415 in project records, showing source of materials and type and quantity used
2501 2503 2506	3. Concrete Pipe Fine Aggregate	3126		1 quality test per month during production for A and B above.	10 kg. (25 lb.)	
2501 2503 2506	3. Concrete Pipe Coarse Aggregate	3137		1 quality test per month during production for A and B above.	10 kg. (25 lb.)	

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes		
2412	4. Precast/Prestressed Concrete Structures A. Reinforced Precast Box Culvert	3238	1 air test per pour (1st load), One set of cylinders per 25 cubic yards, with a minimum of two cylinders per set. Alternate cylinder acceptance systems may be allowed with the approval of the State Materials Engineer.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Precast/prestressed Concrete Structure (beams, posts, etc.) will be inspected and stamped at plant. Field personnel are responsible for checking for plant inspector's stamp, for shipping/handling damage or defects, and dimensions. An inspection report will be completed by plant personnel and sent to the field personnel.		
				Fine Aggregate	3126		1 quality test per month during production.	10 kg. (25 lb.)
				Coarse Aggregate	3137		1 quality test per month during production.	10 kg. (25 lb.)
2405	4. Precast/Prestressed Concrete Structures B. Precast/Prestressed Concrete Structure (beams, posts, etc.).	2405	1 air test per pour (1st load), One set of cylinders per 25 cubic yards, with a minimum of two cylinders per set, and one set per beam. Alternate cylinder acceptance systems may be allowed with the approval of the State Materials Engineer.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Precast/prestressed Concrete Structure (beams, posts, etc.) will be inspected and stamped at plant. Field personnel are responsible for checking for plant inspector's stamp, for shipping/handling damage or defects, and dimensions. An inspection report will be completed by plant personnel and sent to the field personnel.		
				Fine Aggregate	3126		1 gradation and 1 quality test per month during production from a split sample. Include producer's gradation results on sample card.	10 kg (25 lb.)
				Coarse Aggregate	3137		1 gradation and 1 quality test per month during production from a split sample. Include producer's gradation results on sample card.	10 kg (25 lb.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2506	5. Manholes and Catch Basins (Construction)	2506 3622	Field Inspection: Check for damage and defects. Check dimensions as required. Check for Producer's "Certified" stamp and signature on the certification document.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Form 02415 or 2403 Product will be certified by producer or inspected, tested and stamped at source. Only spot checks are done by plant inspector. Make certain the invoice or certification document is signed and the product has the required markings. Maintain Form 2403 or 02415 in project records, showing source of materials and type and quantity used (bricks, blocks, precast, or combination).
2502	6. Drain Tile (Clay or Concrete)	3276	Visual Inspection	2 samples of each size from each source		
2502 2503	7. Thermoplastic (TP) Pipe ABS and PVC	3245	Obtain Certificate of compliance. Check for approved marking printed on pipe. Field Inspect for damage or defects.			Form 02415 or 2403 See Spec. 3245 for specific AASHTO or ASTM Pipe types are approved under this specification. If perforated, holes should be 5mm - 10 mm (3/16 - 3/8 inch) diameter, two rows for 4", and four rows for 6" diameter; approximately 75 mm (3 inches) on center.
2502	8. Corrugated Polyethylene Pipe – Single wall for edge drains, etc.	3278	Check for markings (AASHTO M 252) Certificate of Compliance. Field Inspect for damage or defects.	No Laboratory tests required		Form 02415 or 2403
2503	9. Sewer Joint Sealing Compound	3724		One per shipment	0.5 liter (1 pt.)	
2412 2501 2503	10. Preformed Plastic Sealer for Pipe	3726 Type b		One from each source	0.3 m (1 ft)	
2412 2501 2503	11. Bituminous Mastic Joint Sealer for Pipe	3728	Visual Inspection	Sample, if questionable		

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2105	12. EPS Geofoam	Special Provisions	Visual Inspection Check for yellow aged material, uniformity and dimensions. Weigh 1'x1'x1' cut coupon to verify density every 200 m ³ (250 yd ³)			Form 02415 or 2403
2501 2503	13. Corrugated Polyethylene Pipe – Dual Wall, 12” – 48”	3247				For Specification 3247, Corrugated Polyethylene Pipe (HDPE) manufacturing facilities are required to be reviewed yearly and in compliance with AASHTO's National Transportation Product Evaluation Program (NTPEP) for producers of AASHTO M294 HDPE pipe. To determine if a pipe manufacturing plant is qualified, click on the following link for M294 pipe. http://data.ntpep.org/Module/PIPE/StatusReport.aspx If a plant has a compliant NTPEP audit for AASHTO M294 pipe at the time the pipe is manufactured, then the plant has met requirements. Note that a previous year's audit shall govern until NTPEP issues the next year's audit. A Certificate of Compliance shall be provided in accordance with Specification 1603.

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2105 2411 2412 2501 2502 2511 2512	14. Geotextile Fabric and Geogrid Reinforcement	3733 and Special Provisions	Inspect for damage and uniformity of texture. Rolls of both geotextile and geotextile wrapped PE Tubing must be wrapped in UV protective plastic. (Usually Black). Obtain Certificate of Compliance If using adhesive for seams, see Approved/Qualified Product List available at the Department's website	<p>(a) 1 per project for pipe wrap or trench lining for Permeable base designs.</p> <p>(b) 1 per 50,000 yd² (40,000 m²) or fraction thereof of each type fabric or geogrid for all other uses.</p> <p>(c) Seam, if required, 1 per project minimum, additional as appropriate.</p> <p>Small Quantity Acceptance</p> <ul style="list-style-type: none"> • For fabric totals less than 200 yd² (170 m²) • For pipe wrap totals less than 1000 Lin. Ft • No sampling required • Use Inspection Report for Small Quantities (Form 2403) • Check: <ul style="list-style-type: none"> ○ Certificate of Compliance ○ Identifying label on product ○ Geotextile Small Quantity Acceptance List at http://www.dot.state.mn.us/materials/aggregatedocs/gtclist.pdf 	<p>(a) 10 Lin. Ft. (3 m)</p> <p>(b) 4 yd² (3 m²)*</p> <p>(c) 10 Lin. Ft. (3 m)**</p>	<p>Certificate of Compliance shall state material identification (e.g. Propex 2002, Miragrid 8XT), and minimum average roll values (MARV) for all specified geotextile properties. MARV values must meet the Specification 3733 Types 1 through 7 requirements for the specific application. Submit copy of Certificate with material samples sent to the Materials Laboratory.</p> <p>Submit additional sample(s), if the manufacturer or model of geotextile or geogrid used changes during construction.</p> <p>Sampling shall be by random selection and no more than one sample shall be taken from an individual roll. For type 6 applications (including geogrids), submit pages of Special Provisions that list required material properties. (Type 6 requirements are job specific.) For Modular Block Walls or Reinforced Soil Slopes, submit page(s) of shop drawings that reference geogrid/geotextile to be used (product name) and/or required properties.</p> <p>* Do not sample first full turn of rolled product. ** Seam sample to include approximately 3 ft (1 m) of geosynthetic material on each side of seam (in direction perpendicular to seam).</p>

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2506	1. Brick A. Sewer (clay) and Building	3612 to 3615	Visual Inspection	One sample per 50,000 brick or fraction thereof	6 whole bricks	
2506	1. Brick B. Sewer (Concrete)*	3616	Visual Inspection	One sample per shipment.	6 whole bricks	* Air entrainment required. Obtain air content statement from supplier.
2506	2. Concrete Masonry Units A. For Sewer Construction	3621	Visual Inspection	One sample per shipment	6 whole units	Air entrainment required. Obtain air content statement from supplier.
2411	2. Concrete Masonry Units B. For Modular Block Retaining Walls	Special Provisions	Visual Inspection Check for cracks and broken corners	One sample per 10,000 units or fraction thereof, with a minimum of one sample per product (block) type per contract.*	5 whole units	All lots of block upon delivery shall have Manufacturer or Independent laboratory test results to verify passing both compression and freeze-thaw requirements. * Wall units and cap units are considered separate block types.
2422	3. Reinforced Concrete Cribbing	3661	Concrete control tests Air Tests Visual Inspection if previously tested	One cylinder per 100 units, but not less than 5 cylinders for a given contract. Other materials as required herein.	150 x 300mm (6 x 12 in) Cylinders	Form 02415 or 2403 Will be stamped when inspected prior to shipment.
2511 2512 2577	4. Stone for Masonry or Rip-Rap	3601 and Special Provisions	Visual Inspection Submit Form 02415 unless special testing is specified			Form 02415 or 2403 Each source shall be approved by Project Engineer or Supervisor for quality, prior to use. For questions on quality, contact District Materials or Geology Unit.

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545	1. Lighting Standards (Aluminum or Steel)	3811	Visual Inspection			The Fabricator shall submit "Certificate of Compliance", on a per project basis, to the Project Engineer..
2545 2550 2565	2. Hand Holes (Precast, PVC, and LLDPE)	2545 2550 2565				Form 02415 or 2403 Traffic signals and street lighting projects require handholes and frames and covers to be listed on the MnDOT Approved/Qualified Products List (A/QPL) for signal. For cast iron frame and cover: see VIII.6, Drainage Castings
2545 2565	3. Foundation	2545	Slump as needed	1 cylinder per 20 m ³ (25 Cu. yd.)		Rebar is required in concrete foundations as specified in the Contract documents for all traffic signal and street lighting projects.
2402 2545 2565	4. Conduit and Fittings A. Metallic	3801 3802	Visual Inspection	None		Form 02415 or 2403 Conduit shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL). Retain Form 02415 or 2403 in Project File
2545 2565	4. Conduit and Fittings B. Non-Metallic (Rigid and HDPE)	3803 Special Provisions	Visual Inspection			Form 02415 or 2403 Conduit shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL). Retain Form 02415 or 2403 in Project File. For traffic signal and street lighting projects, specific requirements are contained in the Special Provisions for each project.
2545 2565	5a. Anchor bolts (cast in place)	2545 2565				See section VII, 7.
2545	5b. Anchorages (Drilled In)	2545				See section VII, 8.

XI. Electrical and Signal Equipment Items (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2565	Miscellaneous Hardware	2545 2565	Visual Inspection	Sample critical items only. One of each item per shipment. (Critical Items are load bearing, structurally necessary items.)		Will carry "Inspected" tag if sampled and tested prior to shipment. No sample necessary if "Inspected". Do not use if not tested. Field sample at sampling rate for laboratory testing. For traffic signal and street light lighting projects, various miscellaneous hardware is required to be listed on the MnDOT Signals and Lighting Approved/Qualified Products Lists (A/QPL). The Contract documents indicate which items must be on the Signals and/or Lighting APL.
2545 2550 2565	7. Cable and Conductors A. Power Conductors Loop Detector Conductors (No Tubing) Underground Service Entrance (USE) cables	3815.2B1 3815.2B2(a) Special Provisions	Visual Inspection	None		Form 02415 or 2403 Make certain the conductors are the type specified. Submit Field Inspection report showing type and quantities used. Shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL) and type where applicable.
2545 2550 2565	7. Cable and Conductors B. Electrical Cables and Single Conductors with Jacket	3815.2B2(b) 3815.2B3 3815.2B5 3815.2C1 3815.2C3 3815.2C4 3815.2C5 3815.2C6 3815.2C7 3815.2C8 3815.2C14 Special Provisions	Visual Inspection	1 sample per size per lot	1.5m (5 ft)	Form 02415 or 2403 Usually inspected at the distributor. Documentation showing project number, reel number(s), & MnDOT test number(s) will be included with each project shipment. If such documentation is not received from Contractor, submit sample for testing along with material certification from manufacturer. <u>Do not</u> use if <u>not</u> tested. Pre-inspected materials will <u>not</u> be tagged; an inspection report will be sent by the MnDOT inspector for each shipment. Project inspectors should verify that the shipping documents agree with this inspection report. Call Steve Grover at 651-366-5540 or Cindy Schellack at 651-366-5543 with questions. For traffic signal and street lighting projects, the Special Provisions for each project contain electrical cable and conductor specifications.
2545 2550 2565	7. Cable and Conductors C. Fiber Optic Cables	3815.2C13	Visual Inspection - verify make and model number as shown in Special Provisions	None		Form 02415 or 2403 Fiber optic cables shall be listed on the MnDOT Approved/Qualified Products List (A/QPL) for Traffic Management Systems/ITS.

XI. Electrical and Signal Equipment Items (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2565	8. Ground Rods	2545 2565	Visual Inspection	None.		Form 02415 or 2403 Retain Form 02415 or 2403 in project file. Shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL).
2545	9. Luminaires and Lamps	3810				Form 02415 or 2403 Traffic signal and street lighting projects require luminaires and lamps to be listed on the MnDOT Approved/Qualified Products List (A/QPL) for Lighting. The conductors shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL) and type, where applicable.
2545	10. Electrical Systems					Electrical Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report. To be certified by the Project Engineer.
2565	11. Traffic Signal Systems	2565				Traffic Signal Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report. To be certified by the Project Engineer.



Targeted Group Business (TGB) and Veteran-Owned Small Business Special Provisions

Purpose

The MnDOT Targeted Group Business (TGB) and Veteran-owned Small Business programs are part of the MnDOT initiative to increase small business participation on state funded projects. These programs are intended to provide eligible businesses with increased access to state contracting opportunities. Eligibility requirements for both programs are established pursuant to Minn. Stat. §16C.16 and Minn. Rule Parts 1230.1600-1820. TGBs and Veteran-owned Small businesses bidding as prime contractors may receive a preference in the bid amount, and contracts may include goals to increase participation of TGBs and Veteran-owned small businesses as subcontractors.

1. AUTHORITY

The Targeted Group Business and Veteran-owned Small Business programs are authorized in Minn. Stat. §161.321 as amended:

- 1.1 MnDOT may award a preference in the amount bid for this contract to targeted group and Veteran-owned small businesses; and
- 1.2 MnDOT may set a goal for the use of targeted group and Veteran-owned small businesses as sub-contractors on this contract.

2. ELIGIBILITY

Eligibility for TGB

- 2.1 Rules regarding eligibility and the designation of targeted group businesses are established by the Commissioner of the Minnesota Department of Administration and can be found at Minn. Rule Parts 1230.1600-1820. To participate in the MnDOT TGB program, a business must be certified at the time the bid is submitted. Information about the eligibility criteria and the process for obtaining TGB certification can be found on the Department of Administration's website at:
<http://www.mmd.admin.state.mn.us/mn02001.htm>
- 2.2 A certified business is eligible for the MnDOT TGB program if it belongs to a group that is designated as a targeted group business in the specified contracting category. The business must be 51% owned and operated by women, persons with a substantial physical disability, or specific minorities as determined by the Commissioner of Administration (Minn. Stat. §16C.16 Subd. 5). The following table shows the targeted groups for highway construction contracts:

**TABLE OF GROUPS EXPERIENCING DISPARITY IN
MINNESOTA DEPARTMENT OF TRANSPORTATION NON-FEDERAL
HIGHWAY CONSTRUCTION CONTRACTING & SUBCONTRACTING**
(Based on the 2009 Disparity Study)

GROUP	PRIME CONTRACTS	SUBCONTRACTS
African American	X	X
American Indian	X	X
Asian American	X	X
Hispanic American	X	X
Nonminority Women	X	X
Disabled*	X	X

Source: <http://www.mmd.admin.state.mn.us/disparity/orders/orderMnDOT.pdf>
Groups eligible as Targeted Group Businesses are marked with an X. "Disabled" means persons with a substantial physical disability as used in Minn. Stat. §16C.16 Subd. 5(a).

2.3 Contract qualifications and other contract requirements still apply.

Eligibility for Veteran-owned Small Businesses

2.4 The Veteran-owned small business (Veteran) program requirements are defined in Minn. Stat. §16C.16 Subd.6a. The business must be a certified small business that is 51% owned and operated by:

2.4.1 Recently separated veterans, who are veterans as defined in Minnesota Statutes §197.447, who have served in active military service, at any time on or after September 11, 2001, and who have been discharged under honorable conditions from active service, as indicated by the person's United States Department of Defense form DD-214 or by the Commissioner of Veterans Affairs; or

2.4.2 Veterans with service-connected disabilities, as determined at any time by the United States Department of Veterans Affairs (VA); or

2.4.3 Any other veteran-owned small business verified by the VA as such. Verified veteran-owned small businesses may be listed in the Vendor Information Pages database at www.vetbiz.gov; or it may provide a copy of the VA issued notice of verification showing that the business is approved as a veteran-owned small business; the letter must be issued within the 24 month period prior to the bid proposal due date.

2.5 Contract qualifications and other contract requirements still apply. MnDOT may request the Veteran business submit information demonstrating it meets the requirements of ownership and control, small business definitions, or other eligibility criteria.

3. PREFERENCE IN BIDDING

- 3.1 TGB and Veteran businesses will receive a preference of up to 6% of the amount of its bid, not to exceed \$60,000.00. The preference will be applied only for the purpose of evaluating bids, and will not be used to determine the contract award amount or payment due to the contractor under the contract. Eligible bidders must complete the Preference Form included herein.
- 3.2 **A bidder requesting the preference must submit the Preference Form according to the following:**

The Preference Form must be sent via E-mail to biddocsubmittal.dot@state.mn.us; place the State Project number in the subject line. The form must be received by MnDOT no later than the date and time of the bid letting.

4. SUBCONTRACTOR GOALS

- 4.1 If the bidder is an eligible TGB or Veteran business, that portion of the work to be self-performed by the bidder will count towards the subcontractor goals for this contract.
- 4.2 If the bidder is not an eligible TGB or Veteran business, the bidder must make a good faith effort to obtain the participation of TGB and Veteran subcontractors and/or suppliers as a condition of awarding the contract. MnDOT has established the following goals for subcontractors and/or suppliers:
- Veteran goal 0% TGB goal 2.7%
- 4.3 Only the participation of businesses deemed eligible by the Minnesota Department of Administration under Minn. Stat. §16C.16 or Minn. Rule Parts 1230.1600-1820 will count towards the TGB or Veteran business goals.

5. METHODS TO ATTAIN THE SUBCONTRACTOR GOALS

- 5.1 The goal may be attained by:
- 5.1.1 Subcontracting with a TGB and Veteran businesses deemed eligible by the Minnesota Department of Administration under Minn. Stat. §16C.16 or Minn. Rule Parts 1230.1600-1820 To prove the existence of such a subcontract, the Apparent Low Bidder (ALB) must submit a signed agreement or a signed affidavit committing it to enter into such a subcontract;
- 5.1.2 Leasing equipment from eligible TGB and Veteran businesses;
- 5.1.3 Entering into a joint venture with eligible TGB and Veteran businesses. This joint venture must be approved in writing by the MnDOT Office of Civil Rights prior to bid opening;

- 5.1.4 Purchasing materials and supplies from eligible TGB and Veteran businesses. Generally, sixty percent (60%) of the supplier's contracted amount will be credited toward the TGB and Veteran business goals;
- 5.1.5 Using other services as approved in writing by the MnDOT Office of Civil Rights prior to bid opening.

6. SOLICITING TGB AND VETERAN BUSINESSES

- 6.1 **All bidders should make every reasonable effort to subcontract work to TGB and Veteran businesses through good faith negotiations and solicitations in advance of the dates specified for submitting and opening of bids.**
- 6.2 In order to fulfill a TGB and Veteran business goal, the firms utilized as TGB and Veteran business subcontractors or suppliers must be deemed eligible by the Minnesota Department of Administration under Minn. Stat. §16C.16 or Minn. Rule Parts 1230.1600-1820 **prior to the date of the bid opening**. The TGB and Veteran business directories, which are accessible **“through”** or **“linked from”** MnDOT’s Office of Civil Rights’ website, includes the names, addresses and contact information of all eligible TGB and Veteran business firms. MnDOT makes no representation as to any TGB or Veteran business’s technical or financial ability to perform the work. Prime contractors are solely responsible for performing due diligence in hiring TGB and Veteran business subcontractors. A TGB or Veteran business subcontractor’s failure to perform the work will not be considered justification for a compensation increase.

7. IDENTIFYING TGB AND VETERAN BUSINESS COMMITMENT RATES

- 7.1 All bidders must identify the percentage of TGB and Veteran business participation the bidder proposes to utilize on the project at the time of bid. This proposed commitment rate may be used in evaluating good faith efforts in comparison to the performance of other bidders in meeting the TGB and Veteran business goals.

8. APPARENT LOW BIDDER (ALB) SUBMITTAL OF INFORMATION

- 8.1 The ALB must identify the efforts it made to meet both the TGB and Veteran business subcontractor goals. The ALB must submit the information described in this section to the MnDOT Office of Civil Rights (OCR). All bidders are required to thoroughly document these solicitation efforts. The ALB shall justify any bids, quotes, or proposals it rejects from eligible, qualified TGB and Veteran businesses.
- 8.2 **THE INFORMATION IN SECTIONS 8.3 THROUGH 8.6 MUST BE SUBMITTED BEFORE OR ON THE SUBMISSION DUE DATE. The Submission Due Date is the fifth business day after the bid letting date, unless the MnDOT Director of the Office of Civil Rights grants a written extension for good cause shown. The five day period starts the business day following the bid letting date. Information sent by fax or personal delivery must be received by the MnDOT Office of Civil Rights no later than 4:30PM central time on the Submission Due Date. Information sent by U.S. mail must be postmarked no later than the Submission Due Date. FAILURE TO SUBMIT ALL**

REQUIRED INFORMATION BY THE SUBMISSION DUE DATE WILL RESULT IN REJECTION OF YOUR BID ON THE BASIS THAT YOU ARE NOT A RESPONSIBLE BIDDER. PARTIAL SUBMISSIONS WILL NOT BE CONSIDERED.

- 8.3 The ALB must either (1) identify TGB and Veteran business participation sufficient to meet both the TGB and Veteran business goals; or (2) request a waiver of either, or both, of the goal(s) and demonstrate that the ALB made adequate good faith efforts to meet both the TGB and Veteran business goals. The ALB must submit the following documents to the MnDOT Office of Civil Rights:
- 8.4 If the bidder meets the established goals for both the TGB and Veteran business programs, it must complete and submit only the following forms by the submission due date:
- Bidders List
 - Exhibit A Form for each TGB and Veteran business the bidder intends to use
- 8.5 If the bidder does not meet the TGB goal, Veteran business goal, or both, it must apply for a waiver from the goal requirement. The bidder must provide information showing that eligible TGB and Veteran businesses are not reasonably available. Failure to request a waiver by the submission due date will result in rejection of your bid on the basis that you are not a responsible bidder. To request a waiver, 1) the bidder must complete and submit the Waiver Form in addition to the Bidders List form and an Exhibit A form for each TGB and Veteran business the bidder intends to use 2) the bidder must complete and submit the good faith efforts documents as instructed.
- 8.6 To submit a waiver request, the bidder must complete and submit the following good faith efforts documents by the submission due date:
- Waiver Form
 - Bidders List
 - Exhibit A form for each TGB and Veteran business the bidder intends to use
 - Certificate of Good Faith Efforts
 - Any additional information the bidder provides to demonstrate its good faith efforts

Note: Waiver Form and Certificate of Good Faith Efforts must be completed only if the ALB did not obtain sufficient TGB and/or Veteran business participation to meet both the TGB and Veteran business goals.

- 8.7 The ALB must submit the form **TGB and Veteran Business Description of Work and Field Monitoring Report (Exhibit A)**. A separate form must be submitted for each TGB and Veteran business the ALB proposes to utilize on the project. This must *be accompanied by proof of commitment to use the TGB and Veteran business*, such as copies of signed agreements, affidavits, or letters of intent. These commitments will be used to determine the "commitment rate" (the percentage of TGB and Veteran business participation). The ALB must commit to using the proposed TGB and Veteran businesses

for not less than the percentage of the TGB and Veteran business participation shown on the TGB and Veteran business Description of Work and Field Monitoring Report (Exhibit A). An ALB will be deemed a non-responsible bidder if it fails to include in its submission a completed TGB and Veteran business Description of Work and Field Monitoring Report (Exhibit A) for each TGB and Veteran business along with the required signed agreements or affidavits.

- 8.8 The ALB must submit information that demonstrates its adequate good faith efforts to achieve the TGB and Veteran business goal. This information can include, but is not limited to, copies of solicitation letters, faxes, and emails to TGB and Veteran business firms. The ALB must identify the actions it took to achieve the TGB and Veteran business goals.

9. FAILURE TO SUBMIT INFORMATION

- 9.1 If the ALB fails to submit the information required by the previous section, the ALB is a non-responsible bidder and MnDOT will reject the ALB's bid. **All required information must be submitted by the Submission Due Date.** The information submitted must state the ALB's commitment to use TGB and Veteran businesses for not less than the commitment rate.

10. IF BOTH TGB AND VETERAN GOALS ARE NOT MET, A GOOD FAITH EFFORTS REVIEW WILL BE CONDUCTED

- 10.1 An ALB that does not commit to meeting both the TGB and Veteran business goals is thereby not disqualified if the ALB demonstrates that it made adequate good faith efforts (GFE) to meet the TGB and Veteran Business goals. An ALB that does not commit to meet both the TGB and Veteran business goals and fails to show that adequate GFE were made is a non-responsible bidder and MnDOT will reject its bid.
- 10.2 A TGB or Veteran business that bids as a prime contractor will be deemed to have met either the TGB or Veteran business goal if the value of the work performed by its own forces, combined with any work that it has committed to be performed by TGB and Veteran business subcontractors and TGB and Veteran business suppliers, meets or exceeds the TGB and Veteran business subcontractor goals.

11. EVALUATION OF GOOD FAITH EFFORTS

- 11.1 If an ALB has a TGB and/or Veteran business commitment rate that is less than either or both the TGB and Veteran business goals, then the ALB must demonstrate that it made adequate good faith efforts in attempting to meet the TGB and/or Veteran business goals that failed to meet. MnDOT's Office of Civil Rights staff will review the GFE documents submitted by the ALB and the TGB and Veteran business commitment submitted by each bidder to evaluate the ALB's commitment rate.
- 11.2 In the bidder's request for a waiver from the TGB and/or Veteran business participation goal(s), then the bidder must demonstrate that it made adequate good faith efforts in

attempting to meet the goal. MnDOT's Office of Civil Rights staff will review the good faith effort documents submitted by the bidder and make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. MnDOT will consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain TGB and Veteran business participation sufficient to meet the contract goals. Mere pro forma efforts are not good faith efforts to meet these contract requirements. The ALB must show that it took all necessary and reasonable steps to achieve the TGB and Veteran business goals which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient participation, even if they were not fully successful. In evaluating the bidder's adequate good faith efforts, MnDOT will consider the following list of actions. This is not a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases. Compliance with the adequate good faith efforts requirement will be determined on a case-by-case basis.

11.2.1 Solicitation

Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and /or written notices) the interest of eligible TGBs and Veteran businesses that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the TGBs and Veteran businesses to respond to the solicitation. The bidder must determine with certainty if the TGBs and Veteran businesses are interested by taking appropriate steps to follow up initial solicitations.

11.2.2 Selection of Work

Selecting portions of the work to be performed by TGBs and Veteran businesses in order to increase the likelihood that the project goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate TGB and Veteran business participation, even when the prime contractor might otherwise perform these work items with its own forces.

11.2.3 Providing Information and Assistance

Providing interested TGBs and Veteran businesses with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

11.2.4 Negotiation

Negotiating in good faith with interested TGBs and Veteran businesses. It is the bidder's responsibility to make a portion of the work available to TGB and Veteran business subcontractors and suppliers and to select those portions of the work or material needs consistent with the available TGB and Veteran business subcontractors and suppliers, so as to facilitate TGB and Veteran business participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of TGBs and Veteran businesses that were considered; a

description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for TGB and Veteran businesses to perform the work. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including TGB and Veteran business subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using TGBs and Veteran businesses is not in itself sufficient reason for the bidder's failure to meet the contract TGB or Veteran business goal, as long as such costs are reasonable. Also the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from TGB and Veteran businesses if the price difference is excessive or unreasonable.

11.2.5 Rejection of TGBs or Veteran businesses

Not rejecting TGB or Veteran businesses as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal(s).

11.2.6 Financial Assistance

Making efforts to assist interested TGB and Veteran businesses in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.

11.2.7 Equipment Assistance

Making efforts to assist interested TGB and Veteran businesses in obtaining necessary equipment, supplies, materials, or related assistance or services.

11.2.8 Recruitment

Effectively using the services of available community organizations; contractors' groups; State and local business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of TGBs and Veteran-businesses.

11.2.9 Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the TGB or Veteran-business goals.

11.2.10 In addition, MnDOT may also take into account the following:

- a. Whether the bidder's documentation reflects a clear and realistic plan for achieving the TGB or Veteran business goals.

- b. The performance of other bidders in meeting the TGB and Veteran business goals. For example, when the apparent successful bidder fails to meet the goals, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goals. If the apparent successful bidder fails to meet the TGB or Veteran business goals, but meets or exceeds the average TGB or Veteran business participation obtained by other bidders, MnDOT may view this in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

12. Administrative Reconsideration

- 12.1 If OCR determines that the apparent low bidder (ALB) failed to make adequate good faith efforts and therefore, does not grant a waiver, the ALB may request administrative reconsideration. If the ALB does not make a timely written request for administrative reconsideration as described herein, the ALB will be deemed to have waived its right to request administrative reconsideration.
- 12.2 The ALB's request for administrative reconsideration must be made in writing. Requests sent by fax or personal delivery must be received by the MnDOT Office of Civil Rights no later than 4:30 PM on the fifth business day after the ALB receives written notice of the determination. Administrative reconsideration requests sent by U.S. mail must be postmarked no later than the fifth business day after the ALB receives notice of the determination. The ALB is deemed to have notice as of the date indicated on the certified mail receipt signed by the ALB, or its representative, at the time of delivery. The ALB must submit the written request for reconsideration to the attention of **MnDOT Deputy Commissioner at MnDOT, 395 John Ireland Blvd. St. Paul, Minnesota 55155; or by fax 651-366-4795. A copy of the request must be sent to the Director of the Office of Civil Rights at the same address or fax 651-366-3129.**
- 12.3 The Commissioner of MnDOT will designate officials to serve as Reconsideration Officials. The Reconsideration Officials shall not have any role in the original determination that the ALB failed to meet the TGB or Veteran business subcontractor goal or failed to make adequate good faith efforts to do so.

In the reconsideration process, the ALB will have the opportunity to:

- Provide written documentation or argument concerning the issue of whether the ALB met the goal or made adequate good faith efforts to do so.
 - Meet in person with the Reconsideration Officials to discuss the issue of whether the ALB met the goal or made adequate good faith efforts to do so.
- 12.4 The Reconsideration Officials will reconsider the record documenting the good faith efforts of the ALB. The reconsideration process will include the documents and

arguments that the ALB is permitted to submit. The reconsideration process is a review of only the good faith efforts made by the ALB as of the Submission Due Date. Good faith efforts made subsequent to that date will not be considered.

- 12.5 MnDOT will provide the ALB with a written decision on reconsideration, explaining the basis for the determination **within 5 business days following the date scheduled for the ALB to meet with the Reconsideration Officials to discuss the issue.**

13. Counting TGB and Veteran Participation; Commercially Useful Function

- 13.1 In accordance with Minn. Rule Part 1230.1820, MnDOT will determine the percentage of TGB and Veteran participation that will count toward TGB and Veteran goals as follows:
- 13.1.1 Credit toward the goal established for the contract will be at 100 percent for subcontractors who provide labor, materials, and supplies and at 60 percent for subcontractors who provide supplies and materials only.
- 13.2 When a TGB or Veteran subcontractor participates in a contract, MnDOT will only count the value of the work actually performed by the TGB or Veteran toward TGB or Veteran subcontractor goals. This includes the following:
- 13.2.1 The entire amount of the portion of this MnDOT construction contract that is performed by the TGB or Veteran subcontractor's own forces. Include the cost of supplies and materials obtained by the TGB or Veteran subcontractor for the work of the contract, including supplies purchased or equipment leased by the TGB or Veteran subcontractor (except supplies, and equipment the TGB or Veteran subcontractor purchases or leases from the prime contractor or its affiliate).
- 13.2.2 The entire amount of fees or commissions charged by a TGB or Veteran subcontractor firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a MnDOT contract, counts toward TGB or Veteran subcontractor goals, provided that MnDOT determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- 13.2.3 When a TGB or Veteran subcontractor subcontracts part of the work of its contract to another firm, the value of the subcontract work may be counted toward TGB or Veteran goals only if the TGB or Veteran subcontractor is itself a TGB or Veteran business. Work that a TGB or Veteran subcontractor subcontracts to a non-TGB or non-Veteran firm will not count toward TGB or Veteran goals.
- 13.3 When a TGB or Veteran subcontractor performs as a participant in a joint venture, MnDOT will count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the TGB or Veteran subcontractor performs with its own forces toward TGB or Veteran goals.

- 13.4 MnDOT will count expenditures of a TGB or Veteran subcontractor contractor toward TGB or Veteran subcontractor goals only if the TGB or Veteran subcontractor is performing a commercially useful function on that contract.
- 13.4.1 A TGB or Veteran subcontractor performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the TGB or Veteran subcontractor must also be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and paying for the material itself. To determine whether a TGB or Veteran subcontractor is performing a commercially useful function, MnDOT will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and TGB or Veteran credit claimed for its performance of the work, and other relevant factors.
- 13.4.2 A TGB or Veteran subcontractor does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of TGB or Veteran subcontractor participation. In determining whether a TGB or Veteran subcontractor is such an extra participant, MnDOT may examine similar transactions, particularly those in which TGB or Veteran subcontractors do not participate.
- 13.4.3 At least 75 percent of the subcontracts awarded to a TGB or Veteran must be performed by the business to which the subcontract is awarded or another TGB or Veteran business respectively. If a TGB or Veteran subcontractor does not perform or exercise responsibility for at least 75 percent of the total cost of its contract with its own work force, or the TGB or Veteran subcontractor subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, MnDOT may presume that it is not performing a commercially useful function.
- 13.4.4 When a TGB or Veteran subcontractor is presumed not to be performing a commercially useful function as provided in the preceding paragraph, the TGB or Veteran subcontractor may present evidence to rebut this presumption. MnDOT may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.
- 13.5 MnDOT will use the following factors in determining whether a TGB or Veteran trucking company is performing a commercially useful function:

- 13.5.1 The TGB or Veteran subcontractor must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of the meeting TGB or Veteran goals.
- 13.5.2 The TGB or Veteran subcontractor must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- 13.5.3 The TGB or Veteran subcontractor receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures and operates using drivers it employs.
- 13.5.4 The TGB or Veteran subcontractor may lease trucks from another TGB or Veteran subcontractor firm, including an owner-operator that is an eligible TGB or Veteran subcontractor. The TGB or Veteran subcontractor who leases trucks from another TGB or Veteran subcontractor receives credit for the total value of the transportation services the lessee TGB or Veteran subcontractor provides on the contract.
- 13.5.5 The TGB or Veteran subcontractor may also lease trucks from a non-TGB or non-Veteran subcontractor firm, including an owner-operator. The TGB or Veteran subcontractor who leases trucks from a non-TGB or Veteran subcontractor is entitled to credit for the total value of transportation services provided by non-TGB or non-Veteran subcontractor lessees not to exceed the value of transportation services provided by TGB or Veteran trucks on the contract. Additional participation by non-TGB or non-Veteran subcontractor lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.
- 13.5.6 For purposes of this section, a lease must indicate that the TGB or Veteran subcontractor has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the TGB or Veteran, so long as the lease gives the TGB or Veteran subcontractor absolute priority for the use of the leased truck. Leased trucks must display the name and identification number of the TGB or Veteran business.
- 13.6 MnDOT will count expenditures with TGB or Veteran subcontractor(s) for materials or supplies toward TGB or Veteran subcontractor goals as provided in the following:
 - 13.6.1 MnDOT will count 100% of the cost of the materials or supplies toward TGB or Veteran subcontractor goals if the materials or supplies are obtained from a TGB or Veteran manufacturer.
 - 13.6.2 For purposes of this section, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies,

articles, or equipment required under the contract and of the general character described in the specifications.

- 13.6.3 If the materials or supplies are purchased from a TGB or Veteran regular dealer, MnDOT will count 60% of the cost of the materials or supplies toward TGB or Veteran goals.
- 13.6.4 For purposes of this section, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold to or leased to the public in the usual course of business.
- A. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
 - B. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.
 - C. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this section.
- 13.6.5 With respect to materials or supplies purchased from a TGB or Veteran which is neither a manufacturer nor a regular dealer, MnDOT will count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward TGB or Veteran goals, provided MnDOT determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. MnDOT, however, will not count any portion of the cost of the materials or supplies themselves toward TGB or Veteran goals.
- 13.7 MnDOT will not count the participation of a TGB or Veteran subcontractor toward the contractor's final compliance with its TGB or Veteran s subcontractor obligations on a contract until the amount being counted has been actually paid to the TGB or Veteran business(s).

14. Failure to Fulfill TGB or Veteran Business Subcontract Commitments

- 14.1 A contractor that fails to fulfill the TGB and Veteran business commitments is subject to appropriate administrative sanctions if the following factors exist:

- a. the contractor fails to either (1) meet, or (2) make adequate good faith efforts to meet, the TGB and Veteran business commitment it represented in its GFE submission;
 - b. the failure is through no fault of the TGB and Veteran business firm; and
 - c. the failure is not the result of a modification made by MnDOT or the project owner that reduces the scope of work the TGB and Veteran business is to perform.
- 14.2 Sanctions may include, but are not limited to, MnDOT withholding progress payments and monetary deductions from the contract proceeds. MnDOT may deduct a sum equal to the portion of the TGB and Veteran business commitment not fulfilled.
- 14.3 MnDOT may allow for an adjustment of the contractor's TGB and Veteran business commitment if a TGB or Veteran business participant that was part of the original commitment fails to perform and cannot be replaced with another TGB or Veteran business subcontractors despite the contractor's adequate good faith efforts to find another TGB or Veteran business to perform the same amount of work.

15. TGB AND VETERAN BUSINESS REPLACEMENT

- 15.1 The contractor must request prior written consent from MnDOT to terminating a TGB or Veteran business. Written consent is required if the termination occurs any time after a contractor submits an affidavit, subcontract or the TGB and Veteran business Description of Work and Field Monitoring Report (Exhibit A), indicating the TGB or Veteran business firm will perform on the project. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a TGB and Veteran business subcontractor with its own forces or those of an affiliate, a non-TGB or non-Veteran business, or with another TGB or Veteran business firm.
- 15.2 MnDOT will only provide such written consent if it agrees, for reasons stated in its concurrence document, that the prime contractor has good cause to terminate the TGB or Veteran business firm. Good cause includes the following circumstances:
- a) The listed TGB or Veteran business subcontractor fails or refuses to execute a written contract;
 - b) The listed TGB or Veteran subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the TGB or Veteran subcontractor to perform its work in the subcontract results from the bad faith or discriminatory action of the prime contractor;
 - c) The listed TGB or Veteran subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;

- d) The listed TGB or Veteran subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
 - e) The listed TGB or Veteran business subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings under applicable state law;
 - f) MnDOT has determined that the listed TGB or Veteran business subcontractor is not a responsible contractor;
 - g) The listed TGB or Veteran business subcontractor voluntarily withdraws from the project and provides to MnDOT written notice of its withdrawal;
 - h) The listed TGB or Veteran business is ineligible to receive TGB or Veteran business credit for the type of work required;
 - i) A TGB or Veteran business owner dies or becomes disabled with the result that the listed TGB or Veteran business contractor is unable to complete its work on the contract;
 - j) Other documented good cause that MnDOT determines compels the termination of the TGB or Veteran business subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a TGB or Veteran business it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the TGB or Veteran business contractor was engaged, or so that the prime contractor can substitute another TGB or Veteran business or non-TGB or non-Veteran business contractor after contract award.
- 15.3 Before transmitting to MnDOT its request to terminate and/or substitute a TGB or Veteran business subcontractor, the prime contractor must give notice in writing to the TGB or Veteran business subcontractor, with a copy to MnDOT, of its intent to request to terminate and/or substitute, and the reason for the request.
- 15.4 The prime contractor must give the TGB or Veteran business five days to respond to the prime contractor's notice and advise MnDOT and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why MnDOT should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), MnDOT may provide a period of shorter than five days.
- 15.5 In addition to post-award terminations, this process applies to pre-award deletions of or substitutions for TGB or Veteran business firms put forward by the ALB in negotiated procurements. MnDOT will impose appropriate administrative sanctions for non-compliance with these removal requirements.

- 15.6 MnDOT staff may assist the contractor, when requested, in identifying TGB or Veteran business replacement firms. This assistance may include but is not limited to:
- 15.6.1 Providing the contractor with information regarding the availability of other TGB and Veteran businesses.
 - 15.6.2 Providing the contractor with assistance in locating available TGB and Veteran businesses.

16. PAYMENTS

- 16.1 Minnesota Statutes §16A.1245 requires that the prime contractor agrees to pay each subcontractor within ten (10) days of the prime contractor's receipt of payment from the state for undisputed services provided by the subcontractor. The prime contractor is subject to pay interest charges of 1-1/2 percent per month, or any part of a month, to the subcontractor on any undisputed amount not paid to the subcontractor within the ten (10) day period. This provision applies to
- 16.2 Contractors making payments to Contractors, Subcontractors, Suppliers, and Service Providers, regardless of their tier or TGB or Veteran status, are required to complete and submit Contractor Payment Form(s) to the MnDOT Office of Civil Rights (OCR), each time payments are made to subcontractors until final payment is made, no later than ten (10) days after receiving payment from MnDOT.
- 16.3 Failure to comply with the Contractor Payment Form submission requirement or Minnesota's prompt payment law may cause progress payments to be withheld.
- 16.4 At the conclusion of the contract, the prime contractor must present the TGB and Veteran-owned Businesses Total Payment Affidavit to the MnDOT Office of Civil Rights. The affidavit must show the total dollar amount of work performed by each TGB and Veteran business. Submission of this information is a condition of payment.
- 16.5 Bidders who submit a bid are hereby notified that the Minnesota False Claims Act (Minn. Stat. §15C.02) applies to statements and certifications made in connection with the TGB and Veteran programs.



**TARGETED GROUP AND VETERAN-OWNED SMALL BUSINESSES
PREFERENCE FORM**

Name of Contractor/Consultant	S.P. #	Date of Letting
Address	City	State/Zip
Contact Person/ EEO Officer	Phone Number	E-Mail Address

The business is an eligible TGB as shown in the MN Department of Administration online directory at: <http://www.mmd.admin.state.mn.us/process/search/>

OR

The business is an eligible Veteran-owned small business owned and operated by either (check the box that applies and attach the certification documents required with your response to this solicitation):

Veterans as defined in Minnesota Statutes §197.447, who are verified by the United States Department of Veterans Affairs as being a veteran-owned small business as shown in the online directory at: <http://www.vip.vetbiz.gov> The business must be VA verified at the time proposals are due.

OR

Recently separated veterans, who are veterans as defined in Minnesota Statutes §197.447, who have served in active military service, at any time on or after September 11, 2001, and who have been discharged under honorable conditions from active service, as indicated by the person's United States Department of Defense form DD-214 or by the commissioner of veterans affairs. The bidder must provide:

- A copy of the verification as a veteran-owned small business issued by the United States Department of Veterans Affairs (VA). The business must be VA verified at the time proposals are due.
- Discharge form (DD-214) dated on or after September 11, 2001 with condition honorable.

OR

Veterans as defined in Minnesota Statutes §197.447, who are verified by the United States Department of Veterans Affairs as being a service-disabled veteran-owned small business. The bidder must provide:

- A copy of the verification as a service-disabled veteran-owned small business issued by the United States Department of Veterans Affairs (VA). The business must be VA verified at the time proposals are due.

You must submit this form and the documentation required above with your response in order to be considered for this preference.

I certify that the information contained herein is true, accurate, and complete.

Signed _____
Bidder or authorized representative

Office of Civil Rights
TARGETED GROUP AND VETERAN-OWNED SMALL BUSINESS
REQUEST FOR WAIVER FORM

S.P. _____

Letting Date _____

I hereby request a waiver from the Targeted Group Business (TGB) subcontract goal on the grounds that qualified TGBs are not reasonably available. I have provided a detailed explanation of the efforts I made to obtain TGB participation and the determination that TGBs are not reasonably available to perform on this project.

I hereby request a waiver from the Veteran-owned businesses subcontract goal on the grounds that qualified Veteran-owned businesses are not reasonably available. I have provided a detailed explanation of the efforts I made to obtain Veteran-owned business participation and the determination that Veteran-owned businesses are not reasonably available to perform on this project.

I certify that the information contained herein is true, accurate, and complete.

Signed _____
Bidder or Authorized Representative

Bidders requesting a waiver must complete and submit the following:

1. A summary explaining the bidder's determination that TGB and/or Veteran-owned businesses are not reasonably available.
2. Certificate of Good Faith Efforts
3. Affidavit of Good Faith Efforts
4. Bidders List
5. Description of Work (Exhibit A) for each TGB or Veteran-owned businesses participating on the project.

Prime Contractor _____ State Project # _____



TGB & Veteran-Owned Business Description of Work (Exhibit A) and Field Monitoring Report

A contract will not be awarded to the Prime Contractor unless this form is submitted for each TGB and Veteran-owned business participating in the contract. This form is complete when the TGB or Veteran-owned business subcontractor has filled in **all of the applicable information in sections A and B, and signs in section C.** PLEASE PRINT CLEARLY OR TYPE.

**Section (A): (All TGB & Veteran-Owned Subcontractors and Suppliers, including Trucking firms must complete this Section.)
MUST BE COMPLETED BY THE PRINCIPAL**

Check One: TGB or Veteran-Owned Business

Letting Date: _____ State Project Number: _____

Prime Contractor: _____ Phone #: _____

TGB/Veteran Subcontractor: _____ Phone #: _____

TGB/Veteran Principal Name: _____ Total Subcontract \$: _____

TGB/Veteran Participation Claimed: Percent _____ % Amount _____

1. Did you bid and sign a subcontract agreement with the above-named prime contractor? _____
2. Are the items, quantities, and prices listed on the subcontract agreement or affidavit correct? _____
3. List the line items to be performed: _____

4. Are there any other agreements not addressed in the subcontract? If yes, please explain: _____

5. If equipment to be used on this contract is not owned by the TGB/Veteran-owned business, please provide the following information:
 - a. Will the renting or leasing include any of the following: (Attach a copy of the lease/rental agreement(s)).
Equipment _____ Insurance _____ Operator _____ or Maintenance _____
 - b. Lessor's name: _____
Amount to be paid: _____ Number of days to be used: _____
6. Will there be any other firm(s) providing work listed in your subcontract?
If yes, answer the following: Firm's Name: _____ \$ amount of the work: _____
7. What is the name of the person supervising your work on this project? _____
Is this your employee? _____
8. How many people will you be employing on this project? _____ Minorities: _____ Females: _____
9. Total dollar amount of materials to be supplied? _____
10. Who are you purchasing the materials from? _____
11. Please submit Purchase Agreement and/or Purchase Order from manufacturer(s) or primary material supplier(s).
NOTE: This Exhibit 'A' will not be approved without the Purchase Agreement/Purchase Order.
12. Please list all subcontracts that your firm will be performing during the current construction season including contracts that are not in the TGB or Veteran-owned Business Programs (attach additional sheet if necessary)

	Project Number	Prime Contractor	Project Location	# of Working Days
1.				
2.				
3.				

Section (B): TO BE COMPLETED ONLY BY THE TGB OR VETERAN-OWNED BUSINESS TRUCKER

1. The number of hours contracted or quantities to be hauled on this project? _____
2. How many fully operational units will be used on this Project? _____ (Tractor/trailers: _____ Dump trucks: _____)
3. How many fully operational units will be yours? _____ (Dump trucks: _____ Tractors/trailers: _____)
4. How many other units will be yours? _____ (Tractors: _____ Trailers: _____)
5. If ITO's or trucking companies are to be used on this project answer the following (attached additional sheet if necessary):

	Name of ITO/Company	Dollar Amount of Contract/Agreement	Number of Dump Trucks, Tractors/Trailers (specify)
1.			
2.			
3.			

Section (C): (All TGB and Veteran-owned Subcontractors and Suppliers, including Trucking firms, must complete Section C.)

I hereby certify that the information presented above is correct. I agree to inform the Office of Civil Rights in writing of any changes within 10 days of the change(s).

Company: _____

Principal: _____
Signature Title Date

Section (D): TO BE COMPLETED BY MnDOT OFFICE OF CIVIL RIGHTS STAFF PERSON

Project Number: _____ District # _____
MnDOT OCR Staff Person: _____ Phone No. _____
Project Engineer: _____ On-site Phone #: _____
Office Phone #: _____

Section (E): TO BE COMPLETED BY PROJECT ENGINEER WHEN THE TGB OR VETERAN-OWNED BUSINESS HAS COMPLETED 1/3 TO 1/2 OF ITS WORK ON THE CONTRACT

1. Does it appear that the firm is performing the work specified in (Exhibit "A") description of work?
Yes _____ No _____
2. Does it appear that the subcontractor is managing their portion of the project and using their own company employees?
Yes _____ No _____
3. Does it appear that the subcontractor is providing the equipment for their items of work or other work specified?
Yes _____ No _____
4. Does it appear that the quality of the subcontractor's performance, scheduling and project management are meeting industry standards? Yes _____ No _____
5. Comments: _____

NOTE: If you, as the Project Engineer, have checked "NO" to any of the above questions or have any other comments, it is important that you contact the MnDOT Office of Civil Rights Staff Person assigned to this project.

Project Engineer: _____ Date: _____



MINNESOTA DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS

CERTIFICATE OF GOOD FAITH EFFORTS

S.P. _____ Letting Date _____ **TGB** Veteran-owned Business
 Prime Contractor _____ Commitment _____ Commitment _____
 Low Bid _____ Goal _____ Goal _____

LIST YOUR SOLICITATION OF ALL SUBCONTRACTORS, SUPPLIERS, AND SERVICE PROVIDERS

	Subcontractor/Supplier/Service provider	TGB	VET	Phone	Dates, Method of Contact		Description of Work	Dollar Amount of Quote
					Letter	Phone		
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

(Make additional copies of this form as necessary)

I certify that the information above is true, accurate, and complete.

Bidder or Authorized Representative _____ Page ____ of ____



**MINNESOTA DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS**

BIDDERS LIST

S.P. _____ Letting Date _____ **TGB** Veteran-owned Business
 Prime Contractor _____ Commitment _____ Goal _____
 Low Bid _____ Commitment _____ Goal _____

List all comparative quotes of participants performing on the project and participants that bid. Include Subcontractors, Suppliers, Sub-consultants & Service providers.

	Name, Contact Name and Phone number of Contractor *	Check (✓) Firms That Will Be Used	Description of Work	Dollar Amount of Subcontract/Quote
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

* Please indicate with an asterisk (*) or check mark (✓) which subcontractors, suppliers, sub-consultants & service providers you will be using on the project.

(Make additional copies of this form as necessary)

**Minnesota Department of Transportation
Office of Civil Rights**

Contractor Payment Form

State Project Number: _____ Prime _____ Subcontractor _____

Payment Reporting Period: (From: _____ To: _____)

Instructions: All Contractors making payments to subcontractors, regardless of their tier or TGB/Veteran-owned business status, are required to complete and submit this form to MnDOT's Office of Civil Rights (OCR) until final payment is made. Include payments to subcontractors, service providers, sub-consultants & independent contractors. Failure to comply with this form and Minnesota's prompt payment law may cause progress payments to the prime contractor to be withheld. Submit one copy of this form to the OCR Office and one to the project engineer, no later than ten (10) days after receiving payment from MnDOT.

Contractor's Name, Address, Telephone Number		Original Contract Amount	Committed %		Actual to Date	
			TGB	Veteran	TGB	Veteran
Name of Subcontractor/Supplier	TGB/Vet (indicate)	Description of Work	Subcontract Amount			
1.		1.	1.			
2.		2.	2.			
3.		3.	3.			
Amount of Current Payment		% Paid to date	Final Payment? Yes / No			
1.		1.				
2.		2.				
3.		3.				
Company Official's Signature & Title		Date Signed	Name & Title of Individual Completing Report (Type or Print Clearly)			

(This form may be submitted in an alternate format)

I certify that the information above is true, accurate, and complete.

Bidder or Authorized Representative _____

Page ____ of ____

**Minnesota Department of Transportation
Office of Civil Rights**

GOOD FAITH EFFORTS AFFIDAVIT

STATE OF MINNESOTA
COUNTY OF _____

I, _____ being first duly sworn, state as follows:

1. I am the _____ of
_____ organization that has been identified as the
apparent low bidder of the State Project _____.

2. I have the authority to make this affidavit for and on behalf of the apparent low bidder.

3. The information provided in the attached Certificate of Good Faith Efforts is true and
accurate to the best of my belief.

Signed _____
Bidder or authorized representative Title Date

Subscribed and sworn to before me

This _____ day of _____, 20____

Notary Public

My commission expires _____, 20_____

EQUAL EMPLOYMENT OPPORTUNITY (EEO) SPECIAL PROVISIONS

This section of Special Provisions contains the Equal Employment Opportunity (EEO) rules and regulations for highway construction projects in Minnesota which are federally and/or State funded.

The source of funding determines which EEO regulations and goals (Federal and/or State goals) apply to a specific project. When a project contains funding from both Federal and State sources, both sets of regulations apply, and the Minnesota Department of Transportation (MnDOT) monitors and reviews projects at both levels.

If the project contains any Federal funding, and has a total dollar value exceeding \$10,000, Federal EEO regulations and goals apply (pages 2, 6, 7-8, 9-14, 15, 16-17, 22-26, 27-38). The MnDOT Office of Civil Rights monitors and reviews these projects on behalf of the Federal Highway Administration (FHWA), under Federal statutes (23 USC 140) and rules (23 CFR 230).

If the project contains any State funding, and has a total dollar value exceeding \$100,000, State EEO regulations and goals apply (pages 2, 3, 4, 5, 6, 9-14, 16-22). MnDOT's Office of Civil Rights monitors and reviews these projects in conjunction with the Minnesota Department of Human Rights under Minnesota Statutes §363A.36 and its accompanying rules.

MnDOT has established a single review and monitoring process which meets both Federal and State requirements.

Please note that Pages 23-38 of these Special Provisions may be omitted from projects with no Federal funding.

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**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(23 USC 140, 23 CFR 230 and Minnesota Statute §363A.36)**

1. The offerer's or bidder's attention is called to the "Minnesota Affirmative Action Requirements" (EEO Page 4), the "Specific Federal Equal Employment opportunity Responsibilities" (EEO Pages 7-8), the "Standard Federal and State Equal Employment Opportunity Construction Contract Specifications" (EEO Pages 9-14), the "Equal Opportunity Clause" (EEO Page 15) and "Required Contract Provisions - Federal-Aid Construction Contracts" (EEO Pages 27-38).
2. The goals and timetables for minority and women participation, expressed in percentage terms of hours of labor for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as shown on EEO Pages 16-17.

These goals are applicable to all the Contractor's construction work (whether or not it is State or State assisted, Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the regulations in 41 CFR Part 60-4, and/or Minnesota Statutes §363A.36 and its accompanying rules shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) for Federal or federally assisted projects, and Minnesota Statutes §363A.36, and its accompanying rules for State or State assisted projects, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and women employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and women employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4 for Federal or federally-assisted projects and/or Minnesota Statutes §363A.36 and its accompanying rules for state or state-assisted projects. Compliance with the goals will be measured against the total work hours performed.

3. If the contract is federally funded, the Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within ten working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. If the contract is state funded, the Contractor shall provide written notification to the Compliance Division, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155 within ten working days of award of any construction subcontract in excess of \$100,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the county or counties of the State of Minnesota where the work is to be performed.

**NOTICE TO ALL PRIME AND SUBCONTRACTORS
PRE-AWARD REPORTING REQUIREMENTS**

In order to ensure compliance with Federal and State laws and regulations (23 USC 140, and 23 CFR 230, and Minnesota Statutes §363A.36) and to ensure Mn/DOT's ability to monitor and enforce compliance efforts, the following requirements apply if the apparent low bid exceeds \$ 5,000,000.00:

- 1) The Apparent Low Bidder ("ALB") must provide to Mn/DOT the "EEO-8 Form" (also entitled "EEO Compliance Review Report"), which must provide detail on the contractor's total company workforce in the State of Minnesota during the twelve month period preceding July 30th of the previous year (Office and/or clerical personnel need not to be included).
- 2) The ALB must provide to Mn/DOT a work plan for meeting the minority and women employment goals established by the Minnesota Department of Human Rights, for the project in question. The work plan must include, at a minimum (1) how the ALB will incorporate its current minority and women employees in the ALB's efforts to meet the established goals; and (2) a contingency plan if the ALB has determined that its current workforce is not sufficient in order to achieve the established employment goals. If the ALB relies in whole or in part upon unions as a source of employees, then the ALB must (1) include a list of established organizations that are likely to yield qualified minority and women candidates if those union(s) are unable to provide a reasonable flow of minority and women candidates in their work plan; and (2) document the method by which these organizations will refer candidates to the ALB for employment opportunities. All bidders are hereby notified that the U.S. Department of Labor has determined that a contractor will not be excused from complying with the Federal and State laws and regulations cited above based solely on the fact that a contractor has a collective bargaining agreement with a union providing for the union to be the exclusive source of referral and that the union failed to refer minority employees. A contractor may obtain a list of organizations likely to yield qualified minority and women candidates from the Mn/DOT Office of Civil Rights.
- 3) The ALB must provide to Mn/DOT the ALB's total workforce and labor projections for the project (represented in hours), the ALB's projected total number of minority hours for the project, and the ALB's projected total number of women hours for the project. The details must include the trade(s) that will be utilized in order to complete the project.

The ALB must submit documents as required to comply with this section no later than five business days after the date that bids for the contract are opened. The five day period starts the business day following the date that bids were opened. The required documents must be received prior to Contract Award, and must be sent to the Mn/DOT Office of Civil Rights – 395 John Ireland Blvd., Mail Stop 170 St. Paul, MN 55155-1899. Submittal of the documents described in (1), (2) and (3) is required for contract award to the ALB. The submitted documents will be used as a tool to assist contractors in meeting employment goals; the content itself will not be evaluated for the purpose of determining contract award.

MINNESOTA AFFIRMATIVE ACTION REQUIREMENTS

1. It is hereby agreed between the parties to this contract that Minnesota Statutes, Section §363A.36, and its accompanying rules are incorporated into any contract between these parties based upon this specification or any modification of it. A copy of Minnesota Statutes, Section §363A.36, and its accompanying rules is available upon request from the contracting agency. The Contractor hereby agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
2. It is hereby agreed between the parties to this contract that this agency requires that the Contractor meet affirmative action criteria as provided for by Minnesota Statutes §363A.36 and its accompanying rules. It is the intent of the Minnesota Department of Transportation to fully carry out its responsibility for requiring affirmative action, and to implement sanctions for failure to meet these requirements. Failure by a contractor to implement an affirmative action plan, meet project employment goals for minority and women employment or make a good faith effort to do so may result in revocation of his/her Certificate of Compliance or suspension or revocation of the contract (Minnesota Statutes §363A.36).
3. Under the affirmative action obligation imposed by the Human Rights Act, Minnesota Statutes, Section §363A.36, contractors shall take affirmative action to employ and advance in employment minority, female, and qualified disabled individuals at all levels of employment. Affirmative action must apply to all employment practices, including but not limited to hiring, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall recruit, hire, train and promote persons in all job titles, without regard to race, color, creed, religion, sex, national origin, marital status, status with regard to public assistance, physical or mental disability, sexual orientation or age except where such status is a bona fide occupational qualification. These affirmative action requirements of the Minnesota Human Rights Act are consistent with but broader than the Federal requirements as covered in this contract.
4. Affirmative Action for disabled workers. The Contractor shall not discriminate against any employee or applicant for employment because of a physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled individuals without discrimination based upon their physical or mental disability in all employment practices such as employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training (including apprenticeship). In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minnesota Statutes, section §363A.36 and the rules and relevant orders of the Minnesota Department of Human Rights pursuant to the Minnesota Human Rights Act.
5. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of the Minnesota Department of Human Rights. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment minority, women and qualified disabled employees and applicants for employment, and the rights of applicants and employees. **A poster entitled "Contractor Non-discrimination is the Law" may be obtained from: Compliance Unit, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155. (651) 539-1100, TTY 296-1283, Toll Free 1-800-657-3704.**
6. The Contractor shall notify each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minnesota Statutes, section §363A.36 of the Minnesota Human Rights Act, and is committed to take affirmative action to employ and advance in employment minority, women and qualified physically and mentally disabled individuals.

APPROPRIATE WORK PLACE BEHAVIOR ON Mn/DOT CONSTRUCTION PROJECTS UTILIZING STATE FUNDS

It is the Minnesota Department of Transportation's (MnDOT's) policy to provide a workplace free from violence, threats of violence, harassment and discrimination. MnDOT has established a policy of zero tolerance for violence in the workplace. Contractors who perform work on MnDOT construction projects, or local government entities or public agencies utilizing state funds on highway construction projects, shall maintain a workplace free from violence, harassment and discrimination (See definitions, below).

Definitions:

1. Violence is the threatened or actual use of force which results in or has a high likelihood of causing fear, injury, suffering or death. Employees are prohibited from taking reprisal against anyone who reports a violent act or threat.

2. Harassment is the conduct of one employee (toward another employee) which has the purpose or effect of 1) unreasonably interfering with the employee's work performance, and/or 2) creating an intimidating, hostile or offensive work environment. Harassment is not legitimate job-related efforts of supervisor to direct/evaluate an employee or to have an employee improve work performance.

A. Unlawful discriminatory harassment is harassment which is based on these characteristics: race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation. Managers, supervisors and employees shall not take disciplinary or retaliatory action against employees who make complaints of sexual harassment.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, or sexually motivated physical contact, or other verbal or physical conduct or communication of a sexual nature, when submission to that conduct or communication is 1) made a term or condition, either explicitly or implicitly, of obtaining employment; or 2) is used as a factor in decisions affecting an individual's employment; or 3) when that conduct or communication has the purpose or effect of substantially interfering with an individual's employment or creating an intimidating, hostile or offensive work environment, and the employer knows or should have known of the existence of the harassment and fails to take timely and appropriate action. Examples include but are not limited to insulting or degrading sexual remarks or conduct; threats, demands or suggestions that status is contingent upon toleration or acquiescence to sexual advances; displaying in the workplace sexually suggestive objects, publications or pictures, or retaliation against employees for complaining about the behavior cited above or similar behaviors.

B. General harassment is harassment which is not based on the above characteristics. Examples may include, but are not limited to: physically intimidating behavior and/or threats of violence; use of profanity (swearing), vulgarity; ridiculing, taunting, belittling or humiliating another person; inappropriate assignments of work or benefits; derogatory name calling.

3. Discrimination includes actions which cause a person, solely because of race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation to be subject to unequal treatment.

Prime Contractors who work on MnDOT projects shall ensure that their managers, supervisors, foremen/women and employees are familiar with MnDOT's policy on appropriate work place behavior; and shall ensure that their subcontractors are familiar with this policy. Managers, supervisors and foremen/women will respond to, document, and take appropriate action in response to all reports of violence, threats of violence, harassment or discrimination. Failure to comply with this policy may result in cancellation, termination or suspension of contracts or subcontracts currently held and debarment from further such contracts or subcontracts as provided by statute. If you need additional information or training regarding this policy, please contact the Office of Civil Rights at (651) 366-3073.

NOTICE TO ALL PRIME AND SUBCONTRACTORS REPORTING REQUIREMENTS

1. In order to monitor compliance with Federal Statutes 23 USC 140 and 23 CFR 230, and Minnesota Statutes §363A.36, all prime contractors and subcontractors are required to complete a Mn/DOT Monthly Employment Compliance Report each month for each project (Form EEO-13, sample copy at EEO Pages 20-21.) Prime contractors are also required to complete a Contractor Employment Data Report (Form EEO-12, sample copy at EEO Pages 18-19) once prior to work commencing on the project, unless one has been completed already within the calendar year.

The prime contractor of each project collects Monthly Employment Compliance Reports from each subcontractor who performed work during the month, and completes a Monthly Employment Compliance Report on its own work force. **For the month of July only, an EEO-13 is required for each payroll period within the month of July.** The prime contractor submits the EEO-13 forms to the Mn/DOT Project Engineer by the 15th day of the subsequent month.

Failure to submit the required reports in the allowable time frame will be cause for the imposition of contract sanctions.

It is the intent of Mn/DOT to implement monitoring measures on each project to ensure that each prime contractor and subcontractor is promoting the full realization of equal employment opportunities. Any project may be scheduled for an in depth on-site contract compliance review. During the scheduled on-site review, the Contractor will be required to provide to Mn/DOT documentation of its "good faith efforts" as shown in EEO Pages 10-13, at 7 a-p of this contract.

2. If a Federally funded project requires On-the-Job-Training (OJT) participation, information is provided in the contract and can be located by referring to the Table of Contents for Division S. (OJT is also listed as a bid line item under Trainees.) When a contract requires OJT participation, the Prime Contractor shall submit a training plan as indicated in the Proposal. The training plan shall include the job classification titles of trainees, planned training activities and the approximate start date of trainees.
3. When a Contractor selects a trainee applicant for OJT, the Contractor completes an On the Job Training Program-Trainee Assignment form (sample copy at EEO Page 23) and submits it to the Contract Compliance Specialist (CCS) assigned to the project for approval. The CCS notifies the Contractor and Project Engineer when the applicant is approved.
4. Hours of work performed by OJT employees shall be documented on a monthly basis on the Certification of On-The-Job Training Hours form, (Mn/DOT Form No. 21860, sample copy at EEO Page 24). The Contractor shall submit the original and one copy to the Project Engineer, and one copy to the CCS assigned to the project.

Do not remove forms from this contract. Please duplicate forms from the copies in this contract, or the Mn/DOT Office of Civil Rights will provide these forms upon request. Please call the Office of Civil Rights, (651) 366-3073.

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 CFR 230, Subpart A, Appendix A, FAPG June 6, 1996)

1. General.

a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

b. The contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

c. The contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment Opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy.

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote their full realization of equal employment through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre apprenticeship, and/or on-the-job training.

3. Equal Employment Opportunity Officer. The contractor will designate and make known to State highway agency contracting officers

an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy.

a. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action will be made fully cognizant of, and will implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

(1). Periodic meetings of supervisory and personnel office staff will be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2). All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

(3). All personnel who are engaged in direct recruitment for the project will be instructed by the EEO officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. In order to make the contractor's equal employment policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor will take the following actions:

(1). Notices and posters setting forth the contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2). The contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment.

a. When advertising for employees, the contractor will include in all advertisements for employees the notation "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor will, through his/her EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where the implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, or national origin. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (cont.)

classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his/her obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all his avenues of appeal.

7. Training and Promotion.

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e. apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event the Training Special Provision is provided under this contract, this subparagraph will be superseded as indicated in Attachment 2.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. Unions. If a contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as

agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group members and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the State highway agency.

9. Subcontracting.

a. The contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.

b. The contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports:

a. The contractor shall keep such records as necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate:

(1) The number of minority and non minority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractor's who rely in whole or in part on unions as a source of their work force),

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and

(4) The progress and efforts being made in securing the services of minority group subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.

c. The contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by a "Training Special Provision", the contractor will be required to furnish Form FHWA 1409.

**STANDARD FEDERAL AND STATE EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(41 CFR 60-4.3 and Minnesota Statute §363A.36)**

Unless noted, the following apply to both Federal/federally assisted projects and State/state assisted projects. Item 3 applies to Federal/federally assisted projects only

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer Identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 (\$100,000 for State projects) the provisions of these specifications and the Notice which contains the applicable goals for minority and women participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4, 5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work on the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7(a) to (p) of these specifications (itemized as 4 [a] to [o], Minnesota Rules

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

5000.3535). The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minorities and utilization the Contractor should (shall, for State or state assisted projects) reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor shall make substantially uniform progress toward its goals in each craft during the period specified. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Federal goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance programs or from Federal procurement contracting officers. State goals are published periodically in the State Register in notice form, and may be obtained from the Minnesota Department of Human Rights or the Minnesota Department of Transportation Office of Civil Rights. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union, with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications and Executive Order 11246 and its associated rules and regulations for Federal or federally assisted projects, and Minnesota Statutes, Section §363A.36 of the Minnesota Human Rights Act, or the rules adopted under the Act for State or state assisted projects.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained according to training programs approved by the Minnesota Department of Human Rights, the Minnesota Department of Labor and Industry, or the United States Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications must be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following (referred to in Minnesota Rules 5000.3535 as items 4(a) to (o):
 - (a) Ensure and maintain, or for State or state assisted projects make a good faith effort to maintain, a working environment free of harassment, intimidation, and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work. For

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

Federal or federally assisted projects, the Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or women individuals working at such sites or in such facilities.

- (b) Establish and maintain a current list of minority and women recruitment sources, provide written notification to minority and women recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- (c) Maintain a current file of the names, addresses, and telephone numbers of each minority and woman off-the-street applicant and minority or woman referral from a union, a recruitment source, or community organization and of what action was taken with respect to each individual. If the individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- (d) Provide immediate written notification to the commissioner of the Minnesota Department of Human Rights for State or state assisted projects, or the director of the Office of Federal Contract Compliance for Federal or federally assisted projects, when the union, or unions with which the Contractor has a collective bargaining agreement, has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- (e) Develop on-the-job training opportunities and/or participate in training programs for the areas which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the State of Minnesota for State or state assisted projects or the Department of Labor, for Federal or federally assisted projects. The Contractor shall provide notice of these programs to the sources compiled under (b).
- (f) Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its equal employment opportunity obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and women employees at least once a year; and by posting the company equal employment opportunity policy on bulletin boards accessible to all employees at each location where construction work is performed.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (g) Review, at least annually, the company's equal employment opportunity policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions; including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the first day of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (h) Disseminate the Contractor's equal employment opportunity policy externally by including it in any advertising in the news media, specifically including minority and women news media, and providing written notification to and discussing the Contractor's equal employment opportunity policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- (i) Direct its recruitment efforts, both oral and written, to minority, women, and community organizations; to schools with minority and women students; and to minority and women recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- (j) Encourage present minority and women employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and women youth, both on the site and in other areas of a Contractor's work force.
- (k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3. (This requirement applies only to Federal and federally assisted projects.)
- (l) Conduct, at least annually, an inventory and evaluation at least of all minority and women personnel for promotional opportunities; and encourage these employees to seek or to prepare for, through appropriate training, such opportunities. (This is Item 4(k) in Minnesota Rules.)
- (m) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under these specifications are being carried out. (This is item 4(l) in Minnesota Rules.)

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (n) Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes. (This is item 4(m) in Minnesota Rules.)
 - (o) Document and maintain a record of all solicitations or offers for subcontracts from minority and women construction contractors and suppliers, including circulation of solicitations to minority and women contractor associations and other business associations. (This is item 4(n) in Minnesota Rules.)
 - (p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment opportunity policies and affirmative action obligations. (This is item 4(o) in Minnesota Rules.)
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7(a) to (p) for Federal or federally assisted projects, and 4(a)-(o) for State or state assisted projects). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7(a) to (p) or 4(a) to (o) of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and women work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor however, is required to provide equal employment opportunity and to take affirmative action for all minority groups both male and female, and all women both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order for Federal or federally assisted projects, or Minnesota Rules for State or state assisted projects, if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order or Minnesota Rules part 5000.3520 if a specific minority group is under-utilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, creed, religion, sex, or national origin. Minnesota Statutes §363A.36, part 5000.3535 (Subp. 7) also prohibits discrimination with regard to marital status, status with regard to public assistance, disability, age, or sexual orientation.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

11. The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts under the federal Executive Order 11246 or a local human rights ordinance, or whose certificate of compliance has been suspended or revoked pursuant to Minnesota Statutes, Section §363A.36.
12. The Contractor shall carry out such sanctions for violation of these specifications and of the equal opportunity clause, including suspension, termination, and cancellation of existing contracts as may be imposed or ordered pursuant to Minnesota Statutes, Section §363A.36, and its implementing rules for State or state assisted projects, or Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs for Federal or federally assisted projects. Any contractor who fails to carry out such sanctions shall be in violation of these specifications and Minnesota Statutes, Section §363A.36, or Executive Order 11246 as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications (paragraph 4 in Minnesota Rules 5000.3535), so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of these Specifications or Minnesota Statutes, Section §363A.36 and its implementing rules, or Executive Order 11246 and its regulations, the commissioner or the director shall proceed in accordance with Minnesota Rules part 5000.3570 for State or state assisted projects, or 41 CFR 60-4.8 for Federal or federally assisted projects.
14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Minnesota Department of Human Rights or the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (for example, mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing provided in this part shall be construed as a limitation upon the application of other state or federal laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents.

EQUAL OPPORTUNITY CLAUSE
(41 CFR Part 60-1.4 b, 7-1-96 Edition)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Highway Agency (SHA) setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of Executive Order 11246, Equal Employment Opportunity, dated September 24, 1965, and of the rules, regulations (41 CFR Part 60), and relevant orders of the Secretary of Labor.
5. The Contractor will furnish all information and reports required by Executive Order 11246 and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto, and will permit access to its books, records, and accounts by the Federal Highway Administration (FHWA) and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract, or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraph (1) through (7) in every subcontract or purchase order so that such provisions will be binding upon each subcontractor or vendor, unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246. The Contractor will take such action with respect to any subcontract or purchase order as the Secretary of Labor, SHA, or the Federal Highway Administration (FHWA) may direct as a means of enforcing such provisions, including sanctions for noncompliance. In the event a contractor becomes a party to litigation by a subcontractor or vendor as a result of such direction, the contractor may request the SHA to enter into such litigation to protect the interest of the State. In addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Minority and Women Employment Goals

County	Federal Goals		State Goals	
	Minority Goal	Women Goal	Minority Goal	Women Goal
Aitkin	2.2%	6.9%	5%	6%
Anoka	2.9%	6.9%	22%	6%
Becker	0.7%	6.9%	6%	6%
Beltrami	2.0%	6.9%	6%	6%
Benton	0.5%	6.9%	3%	6%
Big Stone	2.2%	6.9%	4%	6%
Blue Earth	2.2%	6.9%	4%	6%
Brown	2.2%	6.9%	4%	6%
Carlton	1.2%	6.9%	5%	6%
Carver	2.9%	6.9%	22%	6%
Cass	2.2%	6.9%	6%	6%
Chippewa	2.2%	6.9%	4%	6%
Chisago	2.9%	6.9%	3%	6%
Clay	0.7%	6.9%	6%	6%
Clearwater	2.0%	6.9%	6%	6%
Cook	1.2%	6.9%	5%	6%
Cottonwood	0.8%	6.9%	4%	6%
Crow Wing	2.2%	6.9%	6%	6%
Dakota	2.9%	6.9%	22%	6%
Dodge	0.9%	6.9%	4%	6%
Douglas	2.2%	6.9%	6%	6%
Faribault	2.2%	6.9%	4%	6%
Fillmore	0.9%	6.9%	4%	6%
Freeborn	0.9%	6.9%	4%	6%
Goodhue	2.2%	6.9%	4%	6%
Grant	2.2%	6.9%	6%	6%
Hennepin	2.9%	6.9%	32%	6%
Houston	0.6%	6.9%	4%	6%
Hubbard	2.0%	6.9%	6%	6%
Isanti	2.2%	6.9%	3%	6%
Itasca	1.2%	6.9%	5%	6%
Jackson	0.8%	6.9%	4%	6%
Kanabec	2.2%	6.9%	3%	6%
Kandiyohi	2.2%	6.9%	3%	6%
Kittson	2.0%	6.9%	6%	6%
Koochiching	1.2%	6.9%	5%	6%
Lac Qui Parle	2.2%	6.9%	4%	6%
Lake	1.2%	6.9%	5%	6%
Lake of the Woods	2.0%	6.9%	6%	6%
Le Sueur	2.2%	6.9%	4%	6%
Lincoln	0.8%	6.9%	4%	6%
Lyon	0.8%	6.9%	4%	6%

Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights

Revised 07/12

County	Federal Goals		State Goals	
	Minority Goal	Women Goal	Minority Goal	Women Goal
Mahnomen	2.0%	6.9%	6%	6%
Marshall	2.0%	6.9%	6%	6%
Martin	2.2%	6.9%	4%	6%
McLeod	2.2%	6.9%	3%	6%
Meeker	2.2%	6.9%	3%	6%
Mille Lacs	2.2%	6.9%	3%	6%
Morrison	2.2%	6.9%	6%	6%
Mower	0.9%	6.9%	4%	6%
Murray	0.8%	6.9%	4%	6%
Nicollet	2.2%	6.9%	4%	6%
Nobles	0.8%	6.9%	4%	6%
Norman	2.0%	6.9%	6%	6%
Olmsted	1.4%	6.9%	4%	6%
Otter Tail	2.2%	6.9%	6%	6%
Pennington	2.0%	6.9%	6%	6%
Pine	2.2%	6.9%	3%	6%
Pipestone	0.8%	6.9%	4%	6%
Polk	1.2%	6.9%	6%	6%
Pope	2.2%	6.9%	6%	6%
Ramsey	2.9%	6.9%	32%	6%
Red Lake	2.0%	6.9%	6%	6%
Redwood	0.8%	6.9%	4%	6%
Renville	2.2%	6.9%	3%	6%
Rice	2.2%	6.9%	4%	6%
Rock	0.8%	6.9%	4%	6%
Roseau	2.0%	6.9%	6%	6%
Scott	2.9%	6.9%	22%	6%
Sherburne	0.5%	6.9%	3%	6%
Sibley	2.2%	6.9%	4%	6%
St. Louis	1.0%	6.9%	5%	6%
Stearns	0.5%	6.9%	3%	6%
Steele	0.9%	6.9%	4%	6%
Stevens	2.2%	6.9%	6%	6%
Swift	2.2%	6.9%	4%	6%
Todd	2.2%	6.9%	6%	6%
Traverse	2.2%	6.9%	6%	6%
Wabasha	0.9%	6.9%	4%	6%
Wadena	2.2%	6.9%	6%	6%
Waseca	2.2%	6.9%	4%	6%
Washington	2.9%	6.9%	22%	6%
Watonwan	2.2%	6.9%	4%	6%
Wilkin	0.7%	6.9%	6%	6%
Winona	0.6%	6.9%	4%	6%
Wright	2.9%	6.9%	3%	6%
Yellow Medicine	2.2%	6.9%	4%	6%

Minnesota Department of Transportation
 Office of Civil Rights
 Contractor Employment Data

1. Contractor Name and Address:

Phone: _____

2. Employment Data		b) Social Security #	c) New Hire (Y or N)	d) Ethnicity	e) Gender (M or F)	f) Trade/Foreman, Supervisors, Managers	g) Level (A, J, or T)
a) Name: Last Name, First Name, MI							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
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23.							
24.							
25.							
26.							
27.							

INSTRUCTIONS FOR EEO-12 CONTRACTOR EMPLOYMENT DATA

This form should be submitted at the Pre-Con to the Project Engineer prior to the start of your first MnDOT construction project for the calendar year (Prime and Subs)

1. Contractor Name and Address self-explanatory.
2. Employment Data information will coincide with your employment records.
 - 2a. Name should be listed First Name, Middle Initial, and Last Name. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 2b. Social Security Number self-explanatory.
 - 2c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 2d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 2e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 2f. Trade/Foreman, Supervisors, Managers self-explanatory. List trade that applies unless the employee fits one of the other three categories.
 - 2g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.

If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073.
(Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Work force Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3015.

Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights

Revised 07/12

Minnesota Department of Transportation Office of Civil Rights Monthly Employment Compliance Report EEO-13		1. SP <input type="checkbox"/> SAP <input type="checkbox"/> (Check one) SP# _____ County or City _____ 2. Reporting Period _____ to _____		3. Contractor Name: Federal Tax ID: Street Address: _____ City, State Zip _____		4. Prime <input type="checkbox"/> Subcontractor <input type="checkbox"/> (check one) 5. Dollar Amount of Contract: _____ 6. Percent of Completion: _____		
7. Employment Data a) Name: Last, First Middle Initial		b) Social Security #	c) New Hire (Y or N)	d) Ethnicity	e) Gender M or F	f) Trade/Foreman, Supervisors, Managers	g) Level (A, J or T)	h) Hours Worked This Period
1.								
2.								
3.								
4.								
5.								
6.								
7.								
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10.								
11.								
12.								
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15.								
16.								
17.								
18.								
19.								
20.								
8. Contract Goals MINNESOTA GOALS %OBTAINED _____ % Minority _____ % _____ % Women _____ %		9. Prepared by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____						
10. Reviewed by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____								

INSTRUCTIONS FOR EEO-13

MONTHLY EMPLOYMENT COMPLIANCE REPORT

- 1.-5. Self-explanatory – State **Project #**, county project is located in, are you a prime or sub, and contract value.
 6. Percent of Completion is the estimated percentage of work completed including this reporting period.
 7. Employment Data information will coincide with your employment records. All professional, supervisory and managerial hours actually worked on the project site must be included, whether or not they appear on the certified payroll.
 - 7a. Name should be listed Last Name, First Name, and Middle Initial. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 7b. Social Security Number self-explanatory.
 - 7c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 7d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 7e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 7f. Trade/Foreman, Supervisors, Managers list the trade that applies unless the employee fits one of the other three categories.
 - 7g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.
 - 7h. Hours Worked for This Period will be all hours worked by the individual, for each trade, during the specified reporting period.
 8. Contract Goals are the percent of total project hours to be worked by minority and women employees. The goals are determined by the geographic location and source of funding for the project. Projects in excess of \$100,000 with any State funding must meet the State Employment Goals. Projects in excess of \$10,000 with any Federal funding must meet the Federal Employment Goals. (See chart on EEO Pages 16-17.) Minority and women employee hours shall be distributed evenly throughout the length of the project and in every trade and craft that performs work on the project.

% Obtained is the percent of the total project hours worked by minority and women employees, up to and including this reporting period.
 9. Prepared by Contractor Designee is the signature of the prime or subcontractor’s EEO officer/designee.
 10. Reviewed by Project Engineer is the signature of the MnDOT staff monitoring the project.
- The Prime Contractor will submit EEO-13 forms for its workforce and all subcontractors to the MnDOT Project Engineer by the 15th day of the month following the month when work was performed. If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073. (Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Workforce Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3321.

EEO COMPLIANCE REVIEW REPORT

Total Company Workforce
(For 12 Month Period Preceding July 30th of the previous year)

Name and Address of Contractor

Name and Title of Corporate Officer

Name of EEO Officer

Job Categories	Total Employees		Total Minorities		Blacks		Asian/ Pacific Is.		American Indian		Hispanic		On-the-Job Trainees	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Officials (Managers)														
Supervisors														
Foremen/Women														
Clerical														
Equipment Operators														
Mechanics														
Truck Drivers														
Iron Workers														
Carpenters														
Cement Masons														
Electricians														
Pipefitters & Plumbers														
Painters														
Laborers														
Misc. Trades														
Total														
On-the-Job Trainees														

SCHEDULE OF PRICES

NOTICE TO BIDDERS

Particular note should be made in regard to the clarity of numerals (figures) and to the procedure for alterations and the required certificate as directed by Section 1301.

The following abbreviations may be used in item description and unit of measure in the Schedule of Prices.

A	Arch	JA	Jacked
A-S	Antiseepage	LIN FT	Linear Feet
AB	Asbestos Bonded	LG	Long
ACT	Actuated	MAINT	Maintenance
AGG	Aggregate	MATL	Material
ALUM	Aluminum	MGM	1000 Board Feet
ASB	Asbestos	MET	Metal
ASPH	Asphaltic	MOD	Modification
ASSY	Assemblies	MPA	Metal Pipe Arch
B+B	Balled & Burlapped	MTD	Mounted
BC	Bituminous Coated	NON MET	Non Metallic
BIT	Bituminous	NON PERF	Non-Perforated
BLDG	Building	NON REINF	Non-Reinforced
BR	Bridge	OH	Overhead
CAL	Caliper	P-A	Pipe-Arch
CB	Catch Basin	PAVT	Pavement
CEM	Cement	PERF	Perofrated
C and G	Curb and Gutter	PL	Plate
CI	Cast Iron	PNEUM	Pneumatic
C-I-P	Cast-in-Place	PREC	Precast
CL	Class	PREST	Prestressed
COMM	Commercial	PVC	Poly Vinyl Chloride
CONC	Concrete	RCPA	Reinforced Concrete Pipe Arch
COND	Conductor	REINF	Reinforced
CONN	Connection	RELO	Relocation
CONST	Construct	RESTOR	Restoration
CONT	Continuously	RMC	Rigid Metallic Conduit
CP	Cattle Pass	RNMC	Rigid Non Metallic Conduit
CTD	Coated	RDWY	Roadway
CU FT	Cubic Feet	S-G	Sand & Gravel
CU YD	Cubic Yard	SIG	Signal
CULV	Culvert	SPE	Special
CWT	Hundred Weight	SQ FT	Square Feet
DES	Design	SQ YD	Square Yard
DBL	Double	STA	Station
DI	Drop Inlet	STD	Standard
DIAM	Diameter	STL	Steel
DRWY	Driveway	STKPL	Stockpile
EXC	Excavation	STR	Strength
EXP	Expansion	STRUCT	Structural
FAB	Fabric	SPPA	Structural Plate Pipe Arch
FE	Fence	SYS	System
FERT	Fertilizer	T	Traffic
F+I	Furnish & Install	TBR	Timber
FOUND	Foundation	TEMP	Temporary
FT LG	Feet Long	THERMO	Thermoplastic
FURN	Furnish	TRTD	Treated
GA	Gauge	UNDERGRD	Underground
GRAN	Granular	UNTRTD	Untreated
HI	High	VAR	Variable
INP	In Place	VM	Vehicular Measure
INST	Install	WEAR	Wearing

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

CONTRACT

DATE OF OPENING : June 07, 2013

CALL ORDER : 622

JOB NUMBER : 130622

PROJECTS

8825-466

COUNTY : VARIOUS

CODE: M0069

1. MATTISON CONTRACTORS INC

JOB NUMBER : 130622

8825-466 STATE FUNDS In Anoka, Carver, Dakota, Hennepin,
Ramsey, and Washington Counties on Various Trunk Highways
within the Metro Area Noise Walls (IDIQ)

MBE GOAL : 2.70 % WBE GOAL : 0.00 %

SITE	CONTRACT TIME	LIQUIDATED DAMAGES
CONTRACT	1 WORK DAYS	\$ 0.00

CONTRACT ID: 130622

PROJECT(S): 8825-466

ROUTE: VARIOUS

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
---------	------------------	----------------------------	------------------------	------------------------

SECTION 0001 SP 8825-466

0010	2012602/00011 TRAFFIC CONTROL TYPE 1	14.000 EACH	450.00000	6,300.00
0020	2012602/00012 TRAFFIC CONTROL TYPE 2	9.000 EACH	950.00000	8,550.00
0030	2012602/00014 TRAFFIC CONTROL TYPE 4	10.000 EACH	450.00000	4,500.00
0032	2012603/08010 SUPPLEMENTAL DESCRIPTION SALVAGE GLUE LAMINATED RUB RAIL	325.000 LIN FT	4.75000	1,543.75
0034	2101501/00010 CLEARING	0.500 ACRE	5,000.00000	2,500.00
0036	2101506/00010 GRUBBING	0.500 ACRE	5,000.00000	2,500.00
0040	2104503/00004 REMOVE WOOD NOISE WALL	54,027.000 SQ FT	1.50000	81,040.50
0048	2422603/00095 INSTALL GLUE LAMINATED RUB RAIL	325.000 LIN FT	6.50000	2,112.50
0050	2422618/00050 WOOD NOISE BARRIER	10,963.000 SQ FT	10.75000	117,852.25

CONTRACT SCHEDULE

CONTRACT ID: 130622

PROJECT(S): 8825-466

ROUTE: VARIOUS

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE	BID AMOUNT
			DOLLARS CTS	DOLLARS CTS
0054	2012618/08010 SUPPLEMENTAL DESCRIPTION WOOD NOISE BARRIER SPECIAL	43,064.000 SQ FT	10.54000	453,894.56
	TOTAL BID			680,793.56

State Project No. 8825-466

\$680,793.56

PROPOSAL GUARANTY required by 1208 of the Specifications: "A (certified check) (bond). prepared as required by 1208 of the Specifications and payable to the Commissioner of Transportation, in an amount equal to at least 5% of the total amount of the bid is submitted herewith as a proposal guaranty.

DISADVANTAGED BUSINESS ENTERPRISE CERTIFICATION: Our firm will meet a minimum goal of 0.00 % of this contract to Disadvantaged Business Enterprises. A bidder who fails to indicate a specific goal above must fulfill the total goals indicated in this proposal.

NON-COLLUSION AFFIDAVIT: A non-Collusion affidavit is found in this proposal which must be signed by each bidder.

RECEIPT OF ADDENDA as required by 1210 of the Specifications:
The undersigned hereby acknowledges receipt of and has considered:

Addendum No. 1 Dated 05/13/13 Addendum No. Dated / /
Addendum No. Dated / / Addendum No. Dated / /

Signed: MARK MATTISON

EXECUTION OF PROPOSAL as required by 1206 of the Specifications:

This proposal dated the 7 day of June, 2013

Signed: _____, as an individual.

Signature: _____

doing business under the name and style of _____

Signed: _____, for _____ a partnership.

NAME	BUSINESS ADDRESS
_____	_____
_____	_____
_____	_____

Signed: _____, for MATTISON CONTRACTORS INC

a corporation incorporated under the laws of the state of Wisconsin

Name of President MARK MATTISON Name of Secretary JOHN O'MEARA

Name of Vice-President _____ Name of Treasurer MARK MATTISON

Business Address 811 - HWY 12
KNAPP, WI, 54749

(NOTE: Signatures shall comply with 1206 of the Specifications.)

TABLE G.2. Example 2 - IDIQ Contract Language

Missouri Department of Transportation

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

(Job Special Provisions shall prevail over General Special Provisions whenever in conflict therewith.)

- A. General
- B. Project Contact for Contractor/Bidder Questions
- C. Scope of Work
- D. Job Order Contract
- E. Procedures for Developing a Job Order
- F. Term of Contract
- G. Fixed Unit Price List
- H. Adjustment Factors
- I. Bidding the Adjustment Factors
- J. Contract Award
- K. Bonds
- L. Accelerated Repair
- M. Notice to Proceed
- N. Completing the Work
- O. Final Inspection and Acceptance of the Work
- P. Liquidated Damages for Failure or Delay in Beginning and/or Completing Work On Time
- Q. Liquidated Damages Specified for Accelerated Repair Response
- R. Liquidated Damages Specified for Lane Closures
- S. Liquidated Damages for Winter Months
- T. Contract Payments
- U. Work Zone Traffic Management Plan
- V. Traffic Control Plan Types
- W. Pavement Marking
- X. Delay Provisions
- Y. Eliminated Materials
- Z. Sample Job Orders
- AA. Emergency Provisions and Incident Management
- BB. Utilities
- CC. Supplemental Revisions
- DD. Coldmilling and Asphalt Resurfacing Requirements
- EE. Damage to Existing Pavement
- FF. Mobilization
- GG. Previous Job Order Information
- HH. Railroad Requirements
- II. Safety Plan

Job No. JXXXXXXX

Route XXX

Various Counties

<p>“THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.”</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: JXXXXXXX VARIOUS COUNTIES, MO DATE PREPARED: 02/18/2013</p>
	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL</p>	

JOB
SPECIAL PROVISIONS

A. GENERAL – FEDERAL

(to be inserted by Central Office)

B. PROJECT CONTACT FOR CONTRACTOR/BIDDER QUESTIONS

1.0 Any questions relating to the bidding process or concerning the bid document preparation shall be directed to the Central Office Design Division to:

Ms. Natalie Roark
Bidding and Contract Services Engineer
(573) 526-2923
natalie.roark@modot.mo.gov

*****INSERT DISTRICT CONTACT INFORMATION HERE*****

2.0 Upon award and execution of the contract, the successful bidder/contractor shall forward all questions and coordinate the work with the contract administrator. The contract will be administered and inspected by the engineer/contract administrator listed below:

*****INSERT CONTACT INFORMATION HERE*****

C. SCOPE OF WORK

1.0 The scope of work for this project is to provide asphalt pavement repair on an as needed basis in response to sudden occurrences, such as physical damage by the elements, or as a result of wear and tear. The work will be prescribed through individual Job Orders issued to the contractor by the engineer for each work location.

2.0 A work location for this contract shall be limited to a 2-mile section of roadway. A 2-mile section shall be defined as 2 miles in one direction on a divided highway or 2 miles in both directions on an undivided highway.

3.0 The project limits for the work will be along *****insert list of Counties and Routes*****.

4.0 Job Orders will only be issued for work to be performed from April 1 to November 30, unless otherwise mutually agreed upon between the contractor and the engineer.

5.0 The Commission is not bound to issue a minimum or maximum number of Job Orders during the contract term. Award of contract does not guarantee any Job Orders during the duration of the contract. It is the intent, however, to meet the anticipated budget of **\$250,000**.

D. JOB ORDER CONTRACT

1.0 A Job Order Contract is an indefinite quantity contract pursuant to which the contractor shall perform the work itemized in a Job Order at individual work locations throughout the project limits. The contractor shall perform all tasks itemized in the Job Order.

2.0 The engineer will identify the required work at an individual work location in collaboration with the contractor at a Joint Scope Meeting. The engineer will provide the contractor with a draft Detailed Scope of Work which the contractor shall review. Once the detailed Scope of Work is agreed upon, the engineer will issue a Job Order to the contractor. At any given time the contractor may be performing more than one Job Order.

3.0 The contract includes a list of fixed cost pay items with fixed unit prices. Payment for the work will be determined by multiplying the fixed unit prices by an applicable Adjustment Factor. The contractor shall bid three separate Adjustment Factors to be applied to the fixed unit prices as applicable for work performed during normal working hours, nighttime hours or weekend hours as defined elsewhere in this contract. The total cost of an individual Job Order will be determined by multiplying the fixed unit prices of each fixed cost pay item by the appropriate quantity and then multiplying the total cost of all pay items by the appropriate Adjustment Factor.

4.0 Definitions.

4.1. Detailed Scope of Work. A written document that sets forth the work the contractor is obligated to perform in connection with a particular Job Order.

4.2 Job Order. A written order from the engineer to the contractor directing the work required at an individual work location in accordance with the Detailed Scope of Work within the Job Order Completion Time.

4.3 Job Order Completion Time. The time within which the contractor must complete the Detailed Scope of Work for a particular Job Order.

4.4 Fixed Cost Pay Item. Work for which a description and fixed cost is set forth in the fixed cost pay item list.

4.5 Non-Fixed Cost Pay Item. Work for which a description and fixed cost is not set forth in the pay item list. Payment for non-fixed cost pay items will be determined in accordance with Sec 109.4.2, 109.4.3, or 109.4.4. Non-fixed cost pay items will be paid using an Adjustment Factor of 1.000.

E. PROCEDURES FOR DEVELOPING A JOB ORDER

1.0 Initiation of a Job Order. The engineer will notify the contractor of a potential Job Order by issuing a Notice of Joint Scope Meeting. The notification will be issued by electronic mailing or facsimile machine at the discretion of the engineer to the contractor, unless the engineer approves other arrangements. The contractor shall confirm receipt of all job orders by the same means as issued. Notification for accelerated repair work can be initiated by telephone.

1.1 The contractor shall attend the Joint Scope Meeting and be prepared to discuss, at a minimum:

- a. The general scope of the work;
- b. Existing conditions, presence of waterways, wetlands, or other natural resources,
- c. Presence of hazardous materials
- d. Methods and alternative for accomplishing the work;
- e. Access to the site;
- f. Staging area availability/location;
- g. Requirements for catalog cuts, technical data, samples and shop drawings;
- h. Requirements for professional services, including sketches, drawings, and specifications;
- i. Hours of operation;
- j. Anticipated working days and schedule;
- k. Liquidated damages;
- l. Specific quality requirements for equipment and material;
- m. List of anticipated Subcontractors and Material Suppliers.

1.2 Upon completion of the joint scoping process, the engineer will prepare a draft detailed Scope of Work referencing any sketches, drawings, photographs, and specifications required to document accurately the work to be accomplished. The contractor shall review the detailed Scope of Work and request any desired changes or modifications thereto. When an acceptable detailed Scope of Work has been completed, the engineer will issue a Draft Job Order.

1.3 The contractor does not have the right to refuse to perform any Job Order or any work identified in a Job Order. If the contractor refuses to perform any Job Order or any work identified in a Job Order, the contractor may be considered to be in default in accordance with Sec 108.

2.0 Preparation Of The Job Order. The engineer will prepare a Draft Job Order and submit the order to the contractor for final review. The contractor and the engineer will jointly review the Draft Job Order and finalize the order. Establishment of pricing for any non-fixed cost pay items shall be in accordance with Sec 109.4.2 or 109.4.3. If no agreement to pricing can be made then the work will proceed with payment for non-fixed cost items under Sec 109.4.4.

2.1 When the engineer and contractor have agreed to the scope of work and Fixed Cost and Non-Fixed Cost tasks to be performed, the engineer will finalize the official Job Order and submit a signed Job Order for the contractor to review and sign. The affixed signatures by the engineer and the contractor shall bind the Job Order. If the contractor is not clear or in disagreement with the terms of the Job Order he shall NOT sign the Job Order, but shall work with the engineer to clear up any discrepancies in the work to be done. If the contractor fails to execute the Job Order, the contractor may be considered to be in default in accordance with Sec 108.

3.0 The Commission reserves the right to cancel or reject a Job Order for any reason. The Commission also reserves the right not to issue a Job Order if that is determined to be in the best interests of the Commission. The contractor shall not recover costs arising out of or related to the development of the Job Order including but not limited to the costs to attend the Joint Scope Meeting, review the Detailed Scope of Work, subcontractor costs, and the cost to review the Job Order Proposal with the Commission.

4.0 Job Order Issuance. The Job Order will be signed by the engineer and delivered to the contractor. The Job Order will reference the Detailed Scope of Work and set forth the amount to be paid and the time to complete the work.

5.0 Notice to Proceed. Each Job Order will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be within 14 calendar days after the job order is issued. For Job Orders that require an accelerated response, contractors shall respond to the work location and begin the accelerated repair work within 5 calendar days of the notice to proceed established in the Job Order.

5.1 The contractor shall provide 48-hour notification prior to start of repair work for accelerated Job Orders and 5-days notification for all other Job Orders.

F. TERM OF CONTRACT

1.0 The term of this contract shall be for the period commencing *****Insert Date***** and shall end *****Insert Date*****.

1.1 Any work already ordered or in progress when the contract term ends shall be completed in accordance with the provisions, price proposals and timelines established in the issued Job Order(s), or liquidated damages will be assessed against the contractor in accordance with the provisions of this contract.

2.0 The contract may be extended under the original terms and contract prices for the period commencing *****Insert Date***** and shall end *****Insert Date***** for a maximum contract term of two (2) years. If, in the sole discretion of the Commission, the Commission desires to extend the contract, the contractor will be given written notification of the extension no later than December 1 of the current contract year. The contractor shall provide written notification of acceptance or rejection of the extension of this contract no later than January 1 of the current contract year. If the option for extending the contract is exercised by MoDOT, a time adjustment change order will be issued by the Commission to extend the contract to the new term limits. The contractor shall increase the performance contract bond to an amount equal to the original contract amount plus the extended contract amount (i.e., double the original bond amount).

G. FIXED UNIT PRICE LIST

1.0 Description. A fixed unit price list containing unit prices associated with asphalt repair is listed below. Fixed unit prices are for complete and in-place construction and include all labor, equipment and material required to complete the construction task. All labor, material, equipment and work required by a specification shall be considered part of the fixed unit price, unless otherwise stated elsewhere in this contract. Pay limits will be defined in the approved Job Order.

2.0 Fixed Unit Price List for Asphalt Pavement Repair Job Orders.

Item Number	Description	Unit	Fixed Unit Price
4019910	Shoulder Mix (15-100 tons) (Over 9 feet wide)	Tons	\$78.00
4019910	Shoulder Mix (15-100 tons) (4.1-9 feet wide)	Tons	\$93.00
4019910	Shoulder Mix (15-100 tons) (2-4 feet wide)	Tons	\$111.25
4019910	Shoulder Mix (100.1-500 tons) (Over 9 feet wide)	Tons	\$60.50
4019910	Shoulder Mix (100.1-500 tons) (4.1-9 feet wide)	Tons	\$72.00
4019910	Shoulder Mix (100.1-500 tons) (2-4 feet wide)	Tons	\$86.00
4019910	Shoulder Mix (500.1-1000 tons) (Over 9 feet wide)	Tons	\$55.00
4019910	Shoulder Mix (500.1-1000 tons) (4.1-9 feet wide)	Tons	\$65.50
4019910	Shoulder Mix (500.1-1000 tons) (2-4 feet wide)	Tons	\$78.00
4019910	Shoulder Mix (over 1000 tons) (Over 9 feet wide)	Tons	\$51.50
4019910	Shoulder Mix (over 1000 tons) (4.1-9 feet wide)	Tons	\$61.25
4019910	Shoulder Mix (over 1000 tons) (2-4 feet wide)	Tons	\$73.00
4039910	SP125C (64-22) (15-100 tons) (Over 9 feet wide)	Tons	\$87.75
4039910	SP125C (64-22) (15-100 tons) (4-9 feet wide)	Tons	\$104.75
4039910	SP125C (64-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$69.00
4039910	SP125C (64-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$82.30
4039910	SP125C (64-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$61.00
4039910	SP125C (64-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$72.75
4039910	SP125C (64-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$58.50
4039910	SP125C (64-22) (over 1000 tons) (4-9 feet wide)	Tons	\$69.75
4039910	SP125C (70-22) (15-100 tons) (Over 9 feet wide)	Tons	\$93.00
4039910	SP125C (70-22) (15-100 tons) (4-9 feet wide)	Tons	\$111.00
4039910	SP125C (70-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$76.50
4039910	SP125C (70-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$91.25
4039910	SP125C (70-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$67.50
4039910	SP125C (70-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$80.50
4039910	SP125C (70-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$65.00
4039910	SP125C (70-22) (over 1000 tons) (4-9 feet wide)	Tons	\$77.50
4039910	SP125B (76-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$81.50
4039910	SP125B (76-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$97.25
4039910	SP125B (76-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$72.50
4039910	SP125B (76-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$86.50
4039910	SP125B (76-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$69.00
4039910	SP125B (76-22) (over 1000 tons) (4-9 feet wide)	Tons	\$82.25
4039910	SP190C (64-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$68.50
4039910	SP190C (64-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$81.75
4039910	SP190C (64-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$60.25
4039910	SP190C (64-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$71.75
4039910	SP190C (64-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$57.25
4039910	SP190C (64-22) (over 1000 tons) (4-9 feet wide)	Tons	\$68.25
4039910	SP190C (70-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$76.50
4039910	SP190C (70-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$91.25

4039910	SP190C (70-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$64.25
4039910	SP190C (70-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$76.50
4039910	SP190C (70-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$63.00
4039910	SP190C (70-22) (over 1000 tons) (4-9 feet wide)	Tons	\$75.00
4039910	SP190B (76-22) (100.1-500 tons) (Over 9 feet wide)	Tons	\$79.50
4039910	SP190B (76-22) (100.1-500 tons) (4-9 feet wide)	Tons	\$95.00
4039910	SP190B (76-22) (500.1-1000 tons) (Over 9 feet wide)	Tons	\$68.75
4039910	SP190B (76-22) (500.1-1000 tons) (4-9 feet wide)	Tons	\$82.00
4039910	SP190B (76-22) (over 1000 tons) (Over 9 feet wide)	Tons	\$67.00
4039910	SP190B (76-22) (over 1000 tons) (4-9 feet wide)	Tons	\$79.90
4071005	Tack Coat	Gal	\$3.40
6123000A	Truck Or Trailer Mounted Attenuator (TMA)	Each	\$750.00
6133020	Furnishing and Placing Bituminous Material for Class C Partial Depth Pavement Repair	Tons	\$150.00
6133021	Removal for Class C Partial Depth Pavement Repair	Square Yard	\$50.00
6161005	Construction Signs	SF	\$3.00
6161008	Advanced Warning Rail System	Each	\$45.00
6161009	Flag Assembly	Each	\$6.00
6161025	Channelizer (Trim Line)	Each	\$9.00
6161030	Type III Moveable Barricade	Each	\$75.00
6161033	Directional Indicator Barricade	Each	\$18.75
6161040	Flashing Arrow Panel	Each	\$390.00
6161055	Sequential Flashing Warning Light	Each	\$50.00
6161098	CMS, contractor Furnished/Retained	Each	\$1,200.00
6169902	Single Lane Closure	Each	\$3,000.00
6169902	Double Lane Closure	Each	\$3,900.00
6169902	Interior Lane Closure	Each	\$3,900.00
6169902	Triple Lane Closure	Each	\$4,500.00
6169902	Ramp Closure	Each	\$1,800.00
6169902	One-Lane Two-Way Operation with Flagger	Each	\$3,000.00
6189902	Accelerated Repair	Each	\$3,000.00
6189902	Mobilization Coldmill & Resurfacing (15-1000 tons)	Each	\$5,000.00
6189902	Mobilization Coldmill & Resurfacing (Over 1000 tons)	Each	\$3,500.00
6189902	Mobilization Resurfacing Only (15-1000 tons)	Each	\$4,450.00
6189902	Mobilization Resurfacing Only (Over 1000 tons)	Each	\$2,750.00
6189902	Mobilization Material Transfer Vehicle	Each	\$2,700.00
6229905	Milling per SY (< 2")	Square Yard	\$2.10
6229905	Milling per SY (2"-4")	Square Yard	\$2.40
6229905	Milling per SY (4"-6")	Square Yard	\$2.70
6229905	Milling per SY (>6")	Square Yard	\$7.20
6229905	Modified Milling/Depth Transition	Square Yard	\$8.00

H. ADJUSTMENT FACTORS

1.0 Description. Adjustment Factors include business and construction related costs as defined in this specification. It is the responsibility of the contractor to verify the unit prices provided in this contract and to modify their Adjustment Factors accordingly.

1.1 Business Costs. Business related costs consist of profit, overhead costs, subcontractor profit and overhead, taxes, finance costs, and other costs including but not limited to;

- (a) insurance, bonds and indemnification
- (b) project meetings, training, management and supervision
- (c) project office staff and equipment
- (d) employee or subcontractor wage rates that exceed prevailing wages
- (e) fringe benefits, payroll taxes, worker's compensation, insurance costs and any other payment mandated by law in connection with labor that exceeds the labor rate allowances.
- (f) Business risks such as the risk of low than expected volumes of work, smaller than anticipated Job Orders, poor subcontractor performance, and inflation or material cost fluctuations.

1.2 Construction Costs. Construction related costs include but are not limited to;

- (a) personnel safety equipment
- (b) security requirements
- (c) excess material waste
- (d) daily and final clean-up
- (e) costs resulting from inadequate supply of materials, fuel, electricity, or skilled labor
- (f) costs resulting from productivity loss
- (g) working in extreme and adverse weather conditions
- (h) any other discreet items of work required to complete a particular Job Order.

1.3 General Costs. The above lists are not exhaustive and are intended to provide general examples of cost items to be included in the contractor's Adjustment Factors as defined in the contract.

2.0 Normal Work Adjustment Factor. The Adjustment Factor for *Normal Working Hours* includes work conducted from 6:00 a.m. to 7:30 p.m. Monday through Friday.

2.1 In addition to the time period specified in 2.0, work performed during *Normal Working Hours* must also be done during daylight hours, unless the contractor provides the necessary lighting equipment. Daylight hours are defined as ½ hour after sunrise to ½ hour before sunset. If the contractor chooses to work during *Normal Working Hours*, but outside of the defined daylight hours, the contractor shall provide lighting equipment at no additional cost to the Commission.

3.0 Nighttime Work Adjustment Factor. If the engineer determines traffic volumes are such that work cannot be performed during the daytime, Monday through Friday, without significant traffic impacts, the Job Order will specify nighttime repair operations. The Adjustment Factor for *Nighttime Work* includes any work conducted from 7:30 p.m. to 6:00 a.m. Monday through Thursday.

3.1 Any costs for additional lighting equipment necessary to perform nighttime repair operations is considered included in the Nighttime Work Adjustment Factor.

4.0 Weekend Work Adjustment Factor. If the engineer determines traffic volumes are such that work cannot be performed Monday through Friday without significant traffic impacts, the Job Order will specify weekend repair operations. The Adjustment Factor for *Weekend Work* includes any work conducted from 7:30 p.m. on Friday through 6:00 a.m. on Monday, night or day, or a Holiday.

4.1 All work shall be scheduled to avoid major holidays. During the term of this contract there are six major holiday periods: Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas, and New Year's Day. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day preceding the holiday until 9:00 a.m. on the first working day subsequent to the holiday, unless designated as *Weekend Work* by the engineer.

5.0 The Adjustment Factor for Nighttime Work and Weekend Work will not be applied to adjust the unit bid price(s) unless the contractor is specifically directed to perform *Nighttime* or *Weekend Work* by the engineer as part of the Job Order. If the Job Order does not otherwise restrict nighttime or weekend hours, the contractor may, with the approval of the engineer, perform some or all of the repair operations during nighttime or weekend hours but will be paid for the Adjustment Factor specified in the Job Order (i.e. the contractor may be allowed to complete nighttime work on the weekend but will be paid the Nighttime Adjustment Factor).

I. BIDDING THE ADJUSTMENT FACTORS

1.0 The bidder shall complete the bid form by writing in three Adjustment Factors, one for *Normal Working Hours* one for *Nighttime Work* and one for *Weekend Work*. The Adjustment Factors shall be specified to three decimal places. Note that these are contract pay items for contractor payment, not work items.

EXAMPLE: The Adjustment Factors shall be entered as the following example illustrates.

1	.	1	9	8
OR				
0	.	9	8	7

Note: The Adjustment Factors used are for example purposes only and are not an indication of factors being bid by the contractor.

J. CONTRACT AWARD

1.0 The Commission will evaluate the bids with the intent of awarding the contract to the lowest responsible bidder.

2.0 The lowest bid will be determined by multiplying each individual Adjustment Factor by the anticipated budget for each individual adjustment factor. For purposes of determining award of this contract, the estimated percentage of work performed during Normal Working Hours is 15%, the estimated percentage of Nighttime work is 80%, and the estimated percentage of Weekend work is 5%. The extended amount for each item will then be totaled, and the total

sum will be used for bid comparison purposes. The initial contract value will be equal to the total sum. The dollar quantities provided in the bid form are anticipated budgets and are not intended to represent the actual value of work that will be assigned. The anticipated budget for this project is \$250,000.

EXAMPLE: The initial contract value is determined by entering the Adjustment Factors as the following example illustrates:

Item Description	Approximate Quantity	Unit	Unit Price		Bid Amount	
			Dollar	Cts	Dollar	Cts
6189916 Normal Work Adjustment Factor	37,500.00	DLR	1.150		43,125.00	
6189916 Nighttime Work Adjustment Factor	200,000.00	DLR	1.200		240,000.00	
6189916 Weekend Work Adjustment Factor	12,500.00	DLR	1.250		15,625.00	
Bid Total					298,750.00	

Note: The Adjustment Factors used are for example purposes only and are not an indication of factors being bid by the contractor.

K. BONDS

1.0 The amount of the Bid Bond shall be 5% of the anticipated budget for this project which is \$XX,XXX.

2.0 The amount of the Performance Bond shall be 100% of the anticipated budget for this project.

L. ACCELERATED REPAIR

1.0 If the engineer determines the safety of the public is unduly compromised by the damaged facility, the work will be designated as an accelerated repair. Commission forces or others will initially respond to the location and perform such work as necessary to reduce the immediate danger to the public.

2.0 The contractor will be notified by telephone of the location of the accelerated repair and extent of work needed. Written confirmation of the required work will be provided by fax, e-mail or personal delivery immediately after notification. The contractor shall provide a means for the engineer to contact the contractor 24 hours a day for emergencies. The Job Order will be negotiated and issued by the Commission within 48 hours of notification to the contractor. It is estimated that accelerated repair could occur up to 3 times during the term of this contract.

3.0 The contractor shall respond to the work location and begin the accelerated repair work within 5 calendar days of the notice to proceed established in the Job Order. After beginning the accelerated repair work, the contractor shall continuously and diligently pursue the work according to the mutually agreed upon schedule in the Job Order until all of the repairs described in the Job Order are complete, unless otherwise approved by the engineer.

4.0 The contractor will be paid a one-time Accelerated Repair payment for beginning the accelerated repair work within the required 5 calendar days of the Notice to Proceed. An Adjustment Factor will not be applied to the Accelerated Repair payment. All other items necessary to complete the repair work will be paid for at the fixed unit price multiplied by the Normal, Nighttime or Weekend Adjustment Factor, as mutually agreed upon in the Job Order.

M. NOTICE TO PROCEED

Delete Sec 108.2 and substitute the following:

108.2 Notice to Proceed. For each Job Order, the engineer will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be 14 calendar days after the job order is issued.

108.2.1 Job orders that require an accelerated response will normally have a notice to proceed of 5 calendar days after the job order is issued. Response time for accelerated repairs will commence at the time telephone contact is made with the contractor.

N. COMPLETING THE WORK

1.0 The contractor shall perform any task in the fixed unit price list for the fixed unit price multiplied by the quantity, multiplied by the appropriate Adjustment Factor for tasks performed during Normal Working Hours or for tasks performed during Nighttime or Weekend hours. The contractor shall perform the Detailed Scope of Work for the Job Order Price as calculated in accordance with the procedure for developing Job Orders set forth herein.

2.0 When installed quantities differ from the estimated quantities in the issued Job Order, the as built quantities in the final Job Order will address the quantity variation(s) for final payment. When quantities are not specified in the Detailed Scope of Work, the Job Order Price will be deemed to be lump sum for such work.

3.0 The contractor shall employ and supply a sufficient force of workers, materials and equipment and shall progress the work with such diligence so as to ensure completion of the Detailed Scope of Work within the Job Order completion Time or within such extended time for completion as may be granted by the engineer.

4.0 In order to assist in reviewing the Job Order Price Proposal, the contractor shall as part of the Job Order Proposal prepare and submit to the engineer for approval, a progress schedule showing the order in which the contractor proposes to carry on the work, the date of which it will start the major items of work (including but not limited to excavation, drainage, paving, structures, mobilization, soil erosion and sediment control, etc.) and the critical features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same.

O. FINAL INSPECTION AND ACCEPTANCE OF THE WORK

Delete Secs 105.10.7 through 105.10.7.2 and substitute the following:

105.10.7 Final Inspection. Upon completion of the required work for each Job Order, the contractor shall notify the engineer by phone, facsimile, or electronic mailing, and the engineer will perform an inspection. If the engineer determines all work required by the contract has been satisfactorily completed, the engineer will make the acceptance for maintenance and notify the contractor in writing of the date of acceptance for maintenance.

105.10.7.1 Work determined to be unsatisfactory by the engineer and not accepted shall be corrected to acceptable standards at the contractor's sole cost. All items that are unsatisfactory shall be corrected within the specified working days for each job order. If needed for correction of unsatisfactory work, the contractor will be given an extension of contract time in an amount equal to the number of working days remaining in the job order at the time the engineer was notified for inspection. No contract time extension will be made for notification made prior to completion of the work. Any time extension given will be considered a noncompensable delay. Upon completion of the corrections, the contractor shall notify the engineer for a reinspection.

105.10.7.2 Following a Job Order final inspection, the contractor, subcontractors, and suppliers are relieved of any new or additional liability to third parties for personal injury, death, or property damages which may be alleged to result from the performance of the work required by that job order, unless additional work on the right of way is required by the engineer.

105.10.7.3 Nothing in this section shall be deemed to excuse the contractor of liability or responsibility for any personal injury, death, or property damages which may arise from acts or the failure to act prior to the final inspection of the work required by the Job Order.

P. LIQUIDATED DAMAGES FOR FAILURE OR DELAY IN BEGINNING WORK AND/OR COMPLETING WORK ON TIME

1.0 Description. If the contractor, or in case of default, the surety fails to begin the work by the notice to proceed date or fails to complete the work within the mutually agreed schedule included in each job order, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$1000.00 per day** for each full day that the work is not started and **\$1000.00 per day** for each full day that the work is not completed within the required time periods. It shall be the responsibility of the engineer to determine the quantity of excess time.

3.0 The said liquidated damages specified for beginning work and/or completing work will be assessed in addition to any other applicable liquidated damages specified elsewhere in the contract documents.

Q. LIQUIDATED DAMAGES SPECIFIED FOR ACCELERATED REPAIR RESPONSE

1.0 Description. For work designated as accelerated repair work, if the accelerated repair work is not started within the required 5 calendar days of the Notice to Proceed, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration

cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$250.00** per hour for each full hour that the accelerated repair work is not started within the required 5 calendar days of the Notice to Proceed, in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of excess time.

2.0 The contractor will be charged with liquidated damages specified in the amount of **\$250.00** per hour for each full hour that the accelerated repair work is not completed beyond the mutually agreed upon schedule established in the Job Order, in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of excess time.

3.0 The said liquidated damages specified for accelerated repair response will be assessed in addition to any other applicable liquidated damages specified elsewhere in the contract documents.

R. LIQUIDATED DAMAGES SPECIFIED FOR LANE CLOSURES

1.0 Description. The contractor shall be required to have all lanes open to unrestricted traffic and free of any equipment by the time specified in Job Order for each closure location. Should the contractor fail to have the roadway completely open, and free of any equipment by the time specified in Job Order, the Commission, the traveling public, state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$1,000 per 15 minutes** for each 15-minute increment that the roadway is not open and free of any equipment, in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

1.1 The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.

1.2 This deduction will continue until such time as the necessary work is completed and traffic is restored.

2.0 A contingency plan mutually agreed upon by the contractor and the engineer shall be established at the joint meeting and documented in each Job Order in the event of a delay of the scheduled traffic opening time due to weather or other unforeseen circumstances.

S. LIQUIDATED DAMAGES FOR WINTER MONTHS JSP-04-17

1.0 Description. Revise Sec 108.8.1.2 (a) and (b) and substitute the following for the project:

- (a) Liquidated damages will be assessed from December 15 to March 15

(b) Liquidated damages will be assessed for Saturdays, Sundays and Holidays.

T. CONTRACT PAYMENTS

1.0 The engineer will make semi-monthly payment estimates in writing for the Job Orders completed and final inspected during the semi-monthly interval and the value thereof at the price established in the Job Order, including any necessary adjustments. The semi-monthly estimates will include deductions from the contractor's invoice for any liquidated damages applicable to any of the Job Orders.

U. WORK ZONE TRAFFIC MANAGEMENT PLAN

1.0 Description. The contractor may be responsible for the work zone traffic management as mutually agreed upon by the contractor and engineer for each individual Job Order. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

2.0 Work Zone Scheduling.

2.1 The contractor shall notify the engineer at least 48 hours prior to performing any work at each work site. The notification shall include all information needed to identify traffic impacts such as work location, anticipated work hours, traffic control plan type, required lane or shoulder closures, anticipated duration of the work, etc. The contractor shall designate a contact person who is available for the duration of the work to resolve any traffic impact issues resulting from the contractor's operations. The engineer will make appropriate notification to the public, MoDOT customer service, and MoDOT work crews of the contractor's operations. The contractor shall notify the engineer as soon as practical any postponement due to weather, material, or other circumstances and shall notify the engineer when the work has been rescheduled.

2.2 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is reopened to traffic.

2.3 Traffic shall be maintained through the work zone using the existing pavement. Provisions shall be made to allow the movement of emergency vehicles through the limits of construction at all times. During non-working hours the contractor shall have all lanes of traffic open for all routes, ramps, and sideroads. All channelizers and other traffic control devices shall be removed from the roadway during non-working hours unless otherwise approved by the engineer.

2.4 The contractor shall be responsible for maintaining the existing traffic flow through the job site during construction. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent queues from occurring again.

2.5 No direct payment will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

3.0 Work Hour Restrictions.

3.1 During non-working hours the contractor shall have all lanes of traffic open for all routes, ramps, and side roads. Working hours for weekends and holidays shall be determined by the engineer.

3.2 Due to the wide variance in traffic volumes throughout the contract area, it is not possible to give specific work hours for the term of the contract. Each Job Order will specify work hours or work hour restrictions based on the repair location, this may include peak hour restrictions. The following table provides general guidance as to the most restrictive schedule for when work on or adjacent to the roadway may be allowed.

<u>Traffic Control Plan Type</u>	<u>Work Hours (Monday thru Friday)</u>
Single Lane Closure	7:30 p.m. to 4:30 a.m.
Double Lane Closure	9:30 p.m. to 4:30 a.m.
Triple Lane Closure	10:00 p.m. to 4:30 a.m.
Interior Lane Closure	9:30 p.m. to 4:30 a.m.
Ramp Closure	Hours and days as approved by the engineer
One Lane Two Way Operation with Flagger	Hours and days as approved by the engineer

Specific work hours for an individual work location shall be according to the mutually agreed upon schedule in the Job Order. All work shall be scheduled to avoid major sporting events, conventions, concerts, etc.

4.0 **Ramp Closure.** Ramp closures shall be minimized and shall be approved by the engineer a minimum of five days prior to the closure. Only one ramp closure will be permitted in a particular interchange or complex at one time. Work on acceleration / deceleration lanes will not require ramp closure unless approved by the engineer. Detour traffic handling details will be as specified by the engineer. Major ramp closures may require detour signing with other ramp closures only requiring use of changeable message signs (CMS) for detours. If the engineer determines detour signing is required, all necessary detour trailblazing placards will be furnished, installed, and covered by others. The contractor shall furnish all CMS required by the engineer. The contractor shall be responsible for uncovering and covering the trailblazing placards as work progresses.

5.0 **Changeable Message Signs.** The contractor shall provide changeable message signs notifying motorists of future traffic disruption and possible traffic slow down one week before traffic is shifted to a detour. The changeable message sign installation shall be placed at a location as approved or directed by the engineer.

6.0 **Basis of Payment.** All items necessary to complete the traffic control will be paid for at the fixed unit price multiplied by the Normal, Nighttime or Weekend Adjustment Factor, as mutually agreed upon in the Job Order.

V. TRAFFIC CONTROL PLAN TYPES

1.0 Description. The following traffic control plan types shall be used for the job orders issued for this contract.

2.0 Plan Types.

2.1 Single Lane Closure. A single lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices.

2 each	Road Work Ahead
2 each	Reduced Speed Ahead
2 each	Speed Limit XX MPH
4 each	Work Zone (Plaque)
2 each	Right (Left) Lane Closed Ahead
2 each	Right (Left) Lane Closed
2 each	Speed Limit XX (Normal Speed)
12 each	Flag Assembly
14 each	Directional Indicator Barricade
30 each	Channelizer (Trim Line)
2 each	Flashing Arrow Panel (One Truck Mount for TMA)
1 each	Truck Mounted Attenuator
1 each	Changeable Message Sign (Contractor Furnished / Retained)

2.2 Double Lane Closure. The contractor shall obtain approval from the engineer prior to any double lane closure. A double lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices.

2 each	Road Work Ahead
2 each	Reduced Speed Ahead
4 each	Speed Limit XX MPH
6 each	Work Zone (Plaque)
2 each	Right (Left) Lane Closed Ahead
2 each	Right (Left) Two Lanes Closed Ahead
4 each	Right (Left) Lane Closed
2 each	Speed Limit XX (Normal Speed)
18 each	Flag Assembly
28 each	Directional Indicator Barricade
100 each	Channelizer (Trim Line)
3 each	Flashing Arrow Panel (One Truck Mount for TMA)
1 each	Truck Mounted Attenuator
1 each	Changeable Message Sign (Contractor Furnished / Retained)

2.3 Interior Lane Closure. The contractor shall obtain approval from the engineer prior to any interior lane closure. An interior lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices.

2 each	Road Work Ahead
2 each	Reduced Speed Ahead
2 each	Speed Limit XX MPH
4 each	Work Zone (Plaque)

2 each	Left (Right) Lane Closed Ahead
2 each	Left (Right) Lane Closed
2 each	Speed Limit XX (Normal Speed)
12 each	Flag Assembly
14 each	Directional Indicator Barricade
100 each	Channelizer (Trim Line)
3 each	Flashing Arrow Panel (One Truck Mount for TMA)
1 each	Truck Mounted Attenuator
1 each	Changeable Message Sign (Contractor Furnished / Retained)

2.4 Triple Lane Closure. The contractor shall obtain approval from the engineer prior to any triple lane closure. A triple lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices.

2 each	Road Work Ahead
2 each	Reduced Speed Ahead
6 each	Speed Limit XX MPH
8 each	Work Zone (Plaque)
4 each	Right (Left) Lane Closed Ahead
2 each	Right (Left) 3 Lanes Closed Ahead
6 each	Right (Left) Lane Closed
2 each	Speed Limit XX (Normal Speed)
24 each	Flag Assembly
42 each	Directional Indicator Barricade
70 each	Channelizer (Trim Line)
4 each	Flashing Arrow Panel (One Truck Mount for TMA)
1 each	Truck Mounted Attenuator
1 each	Changeable Message Sign (Contractor Furnished / Retained)

2.5 Ramp Closure. The contractor shall obtain approval from the engineer a minimum of five days prior to any ramp closure. A ramp closure shall be performed by furnishing, installing, and removing the following set of traffic control devices. Uncovering and covering any detour trailblazing placards furnished and installed by others is included in the work.

2 each	Road Work Ahead
2 each	Speed Limit XX MPH
4 each	Work Zone (Plaque)
2 each	Ramp Closed Ahead
2 each	Detour Ahead
1 each	Road Closed
2 each	Speed Limit XX (Normal Speed)
10 each	Flag Assembly
14 each	Directional Indicator Barricade
40 each	Channelizer (Trim Line)
2 each	Flashing Arrow Panel (One Truck Mount for TMA)
1 each	Truck Mounted Attenuator
2 each	Changeable Message Sign (Contractor Furnished / Retained)
3 each	Type III Movable Barricade

2.6 One-Lane Two-Way Operation with Flaggers. A minimum of two flaggers will be required to direct traffic. Additional flaggers may be required when working at intersecting

streets or ramps as directed by the engineer. No direct payment will be made for flaggers. "One-Lane Two-Way Operation with Flaggers", shall include furnishing, installing, and removing the following set of traffic control devices as shown on the plans:

2 each	Road Work Ahead
2 each	One Lane Road Ahead
2 each	Be Prepared To Stop
2 each	Flagger (Symbol)

3.0 Additional Traffic Control Devices. The engineer may determine that signs, channelizers, and Type III Movable Barricades in addition to those devices shown in the plans are necessary to safely accommodate traffic. These additional devices may be needed for merging ramp traffic, detours, multiple bridges, or other special cases to supplement the specified lane closure devices. The contract provides a fixed cost for any additional traffic control items.

4.0 Flaggers. Flaggers may be required when working at intersecting streets or ramps as directed by the engineer. No direct payment will be made for flaggers.

5.0 Method of Measurement and Basis of Payment.

5.1 Measurement of lane closures will be made per Job Order. Payment will be made for a maximum of one (1) of each lane closure type at a specific work site per job order. Payment will not be made for any lane closure that does not result in productive repair work as determined by the engineer. Additional lane closures may be installed by the contractor at his expense. The accepted quantity of each lane closure will be paid for at the fixed unit price for:

Item 616-99.02	Single Lane Closure	Each
Item 616-99.02	Double Lane Closure	Each
Item 616-99.02	Interior Lane Closure	Each
Item 616-99.02	Triple Lane Closure	Each
Item 616-99.02	Ramp Closure	Each
Item 616-99.02	One-Lane Two-Way Operation with Flaggers	Each

multiplied by the Normal, Nighttime or Weekend Adjustment Factor, as mutually agreed upon in the Job Order.

5.2 Measurement of additional traffic control devices will be made per Job Order. Payment for the devices shall include furnishing, installing, and removing the additional devices at a specific work site. No payment will be made for additional devices used by the contractor without prior approval of the engineer. The accepted quantity of additional traffic control devices will be paid for in accordance with the fixed unit price list, multiplied by the Normal, Nighttime or Weekend Adjustment Factor, as mutually agreed upon in the Job Order.

W. PAVEMENT MARKING

Delete Sec 620.2.5 and substitute the following:

620.2.5 Pavement Marking for Milling and Resurfacing Operations. The contractor will **not** be responsible for placing and maintaining pavement marking on pavement undergoing milling or resurfacing operations unless mutually agreed upon in the Job Order.

X. DELAY PROVISIONS

1.0 If the contractor is delayed in the commencement, prosecution or completion of the work by any act of the Commission, or by any cause beyond the contractor's control, then the contractor will be entitled to an extension of time. If the contractor is delayed or prevented from working on a particular date as a result of a delay, error or omission of the Commission, and the contractor incurs unavoidable labor costs as a direct result thereof because the contractor did not have enough time to cancel or divert its labor force, then the contractor will be reimbursed for such costs. For each worker so paid, the contractor will be reimbursed the amount paid the worker. Also, the contractor will be reimbursed for construction tasks required as a direct result of such delay, error or omission, such as closing off areas of work. No other costs shall be paid as a result of a delay or late cancellation.

1.1 If the contractor fails to provide 48-hour notification prior to start of accelerated work or 5-days notification for all other Job Orders this provision will not apply.

Y. ELIMINATED MATERIALS

1.0 Materials required by the Detailed Scope of Work and not incorporated into the work due to changes caused by field conditions or revisions to the design by the Commission after the material was ordered or purchased will be reimbursed at the material portion of the Pre-priced Task, or if there is no Pre-priced Task, then its material cost minus salvage value, or the material cost plus delivery costs.

Z. SAMPLE JOB ORDERS

1.0 The following are example Job Orders intended to be illustrations that may be used as a guide for formulating the bid of the Adjustment Factor. For each example Job Order, the appropriate items that would be used and the quantities are computed based upon the sample work that would be completed in the Job Order. The contractor shall be reminded these are Job Order samples and the quantity totals in actual Job Orders, if issued, may be more or less than that depicted below or be totally different from the samples illustrated.

Asphalt and coldmilling unit bid item numbers will vary depending on the quantity range for each Job order sample.

1.1 Job Order Sample 1: Repair Area = 12' X 150', Coldmill and Resurface - 8" Thick, Nighttime Repair.

Item Description	Fixed Unit Price	Quantity	Price
SP125C (PG70-22) Per Ton (15-100 Tons) (4-9 feet wide)	\$111.00	87.6 Tons	\$9,723.60
Tack Coat	\$3.40	10 Gal	\$34.00
Mobilization – Coldmilling & Resurfacing (15-1000 tons)	\$5,000.00	1 Each	\$5,000.00
Milling Per SY (Greater than 6 In. Thick)	\$7.20	200 SY	\$1,440.00
		Subtotal:	\$16,197.60
Nighttime Work Factor	1.200		
		TOTAL:	\$19,437.12

1.2 Job Order Sample 2: Repair Area = 2 - 24' X 600' (1200' total), Coldmill and Resurface – 2” to 1.75” Thick. Each end of a bridge to repair bridge approaches.

Item Description	Fixed Unit Price	Quantity	Price
SP125C (PG64-22) Per Ton (100.1-500 Tons) (Over 9 feet wide)	\$69.00	425.6 Tons	\$29,366.40
Tack Coat	\$3.40	160 Gal	\$544.00
Mobilization – Coldmilling & Resurfacing (15-1000 tons)	\$5,000.00	1 Each	\$5,000.00
Milling Per SY (2 In. or less Thick)	\$2.10	3200 SY	\$6,720.00
		Subtotal:	\$41,630.40
Normal Work Factor	1.150		
		TOTAL:	\$47,874.96

1.3 Job Order Sample 3: Repair Area = 8 - 10' X 250', Shoulder Coldmill and Resurface - 3” Thick. 8 repairs on the outside shoulder in a 2 mile segment of roadway.

Item Description	Fixed Unit Price	Quantity	Price
SHLD MIX Per Ton (100.1-500 Tons) (2-4 feet wide)	\$86.00	373.3 Tons	\$32,103.80
Tack Coat	\$3.40	180 Gal	\$612.00
Mobilization – Coldmilling & Resurfacing (15-1000 tons)	\$5,000.00	1 Each	\$5,000.00
Milling Per SY (2 In. to 4 In. Thick)	\$2.40	2222 SY	\$5,332.80
		Subtotal:	\$43,048.80
Normal Work Factor	1.150		
		TOTAL:	\$49,505.89

1.4 Job Order Sample 4: Repair Area = 24' X 1320', Coldmill and Resurface - 5.75” Thick, Nighttime and Accelerated Repair.

Item Description	Fixed Unit Price	Quantity	Price
SP125C (PG70-22) Per Ton (Over 1000 Tons) (Over 9 feet wide)	\$65.00	1107.6 Tons	\$71,994.00
SP190C (70-22) Per Ton (over 1000 tons) (Over 9 feet wide)	\$63.00	770.5 Tons	\$48,541.50
Tack Coat	\$3.40	180 Gal	\$612.00
Mobilization – Coldmilling & Resurfacing (Over 1000 tons)	\$3,500.00	1 Each	\$3,500.00
Milling Per SY (4 In. to 6 In. Thick)	\$2.70	3520 SY	\$9,504.00
		Subtotal:	\$134,151.50
Nighttime Work Factor	1.200		
		Subtotal:	\$160,981.80
Accelerated Repair	\$3,000.00	1 Ea	\$3,000.00
		TOTAL:	\$163,981.80

1.5 Job Order Sample 5: Repair Area = 24' X 1 mile, Resurfacing Only – 1.75" Thick, Weekend Repair.

Item Description	Fixed Unit Price	Quantity	Price
SP125C (PG64-22) Per Ton (Over 1000 Tons) (Over 9 feet wide)	\$58.50	1348.4 Tons	\$78,881.40
Tack Coat	\$3.40	710 Gal	\$2,414.00
Mobilization – Resurfacing Only (Over 1000 tons)	\$2,750.00	1 Each	\$2,750.00
		Subtotal:	\$84,045.40
Weekend Work Factor	1.250		
		TOTAL:	\$105,056.75

AA. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or other emergency agencies immediately as needed. The engineer shall also be notified when the contractor requests emergency assistance.

2.0 In addition to the 911 emergency telephone number for ambulance, fire or police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol	(314) 340-4000
MoDOT District KC Customer Service (24 hr)	(816) 622-6500
MoDOT Incident Response (24 hr)	(816) 241-2223
City of Kansas City Police	(816) 234-5000
City of Kansas City Fire	816) 513-0911
Clay County Sheriff	(816) 407-3750
Platte County Sheriff	(816) 858-2424
Lafayette County Sheriff	(660) 259-3622
Jackson County Sheriff	(816) 524-4302

2.1 This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate police agency.

2.2 The contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

3.0 No direct payment will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

BB. UTILITIES

1.0 It is the inherent risk of the work under this contract that the contractor may encounter utilities above and/or below the ground or in the vicinity of any given job order which may interfere with their operations. The contractor expressly acknowledges and assumes this risk even though the nature and extent is unknown to both the contractor and the Commission at the time of bidding and award of the contract. The effect in cost or time of the presence of utilities above, below or in the vicinity of the contractor's work under this contract shall not be compensable.

2.0 The contractor will be responsible and is required to call for utility locates prior to performing any excavation work within any project limits for a given job order. Calling for utility locates will not relieve the contractor of his liability for utility damages caused by excavating operations performed by the contractor and/or any of his subcontractors. The contractor shall be solely responsible for all costs, fines, and penalties associated with the repair of any damaged utility caused by the actions of the contractor and/or any subcontractor within the given job order limits.

2.1 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

3.0 Any representation of the presence of utilities on any bidding document provided or job order issued under this contract is disclaimed by the Commission. The contractor fully understands this disclaimer when determining the basis of their bid for this contract. The contractor agrees to hold the Commission harmless in the presents or absents of any utility within the limits of any job order resulting from this contract.

CC. SUPPLEMENTAL REVISIONS

(to be inserted by Central Office)

DD. COLDMILLING AND ASPHALT RESURFACING REQUIREMENTS

1.0 Description. This work shall consist of all labor, equipment, and materials necessary to repair existing asphalt pavement by coldmilling and resurfacing or resurfacing only as specified in the Job Order or as approved by the engineer.

1.1 All work shall comply with Sections 403 and 622 except as herein modified.

2.0 Materials. All material shall be in accordance with Division 1000, Material Details.

3.0 Construction Requirements.

3.1 Coldmilling. Coldmilling will be performed at the locations described in the Job Order or approved by the engineer. The contractor shall only coldmill an area for repair that can be filled back with bituminous material by the end of each working day. All coldmilled material from the project will become the property of the contractor. All or part of the coldmilled material from the routes may be stockpiled on Commission property at locations designated by the engineer. Any material stockpiled on Commission property shall become the property of the Commission, unless other arrangements have been made with the engineer for temporary storage.

3.2 Asphalt Resurfacing. Shoulder mix and SP125 mixtures shall be placed in a maximum of 3" thick lifts unless otherwise approved by the engineer. SP190 mixtures shall be placed in a maximum of 5" thick lifts unless otherwise approved by the engineer. The engineer may require thinner lift placement if there is evidence of insufficient compaction. The bituminous material shall be from approved mixtures and have satisfactory performance history. QC/QA testing will not be required; the contractor will be responsible for their own QA.

3.2.1 Asphalt Mix Type. Typical mainline repair Job Orders of 2" or less thickness may use PG64-22, PG70-22, or PG76-22 mixtures. Mainline repair Job Orders for greater than 2" thickness will typically use only PG70-22 or PG76-22 mixtures. If a job order specifies a repair thickness greater than 3 ½", the contractor may elect to place all lifts below the top 1 ¾" using a coarser mix than SP125. All mixtures shall be as designated in the Job Order unless otherwise approved by the engineer.

3.2.2 Surface Mixtures. All SP125C mixes placed as a surface lift shall contain aggregate meeting the non-carbonate criteria in accordance with Sec 403.3.5.

3.2.3 Straightedging. As soon as practical, the engineer will straightedge all segments of the repaired paved surface specified in the job order. Any variations exceeding 1/8 inch in 10 feet will be marked. Areas more than 1/8 inch high shall be removed as approved by the engineer at the contractor's expense. At transverse construction joints, the surface of all other layers shall not vary from the 10-foot straightedge by more than 1/8 inch.

3.2.4 Shoulder Resurfacing. The material used for any shoulder work may be commercial mix in accordance with Sec 401.5.3.

3.3 Additional or Reduced Work. If additional repair work is necessary beyond what is specified in the Job Order or the damage is not as extensive as originally viewed, the contractor shall contact the engineer for authorization to proceed with the additional or reduced work. The contractor shall note that with this authorization to proceed with additional or reduced work may change which unit bid item is used to calculate final payment depending on final repair quantities. Any work performed without authorization of the engineer shall be at the contractor's expense.

4.0 Method of Measurement. Final measurement of the completed repair area will not be made except for authorized changes during construction, or where appreciable errors are found in the quantity specified in the Job Order. Any revision or correction will be computed and added to or deducted from the Job Order quantity.

5.0 Basis of Payment. The accepted quantity of coldmilling and asphalt resurfacing meeting the required specifications will be paid for at the fixed unit prices and items in the Job Order as mutually agreed upon by the engineer and contractor. No adjustments or pay factors shall be made or calculated for smoothness, density, TSR, and PWL/QLA.

EE. DAMAGE TO EXISTING PAVEMENT

1.0 Description. This work shall consist of repairing any damage to existing pavement, ramps and/or shoulders caused by contractor operations. This shall include damage caused either directly or indirectly by contractor operations, including but not be limited to, damage caused by the traffic during contractor operations.

2.0 Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, ramps and/or shoulders, side roads, or entrances from general construction shall be repaired within twenty four (24) hours of the time of damage at the contractor's expense. Repair of the damaged pavement, shoulders, side roads, or entrances shall be as determined by the engineer.

3.0 Method of Measurement. No measurement of damaged pavement, ramps or shoulder areas as described above shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, ramps and/or shoulders damaged by contractor operations.

FF. MOBILIZATION

Delete Sec 618.2 and substitute the following:

618.2 Method of Measurement and Basis of Payment. Mobilization will be measured and paid for once on each Job Order regardless of the number of work days required to complete the work at a specific work location. If the engineer determines a Material Transfer Vehicle (MTV) is required for the work then an additional payment for MTV Mobilization will be paid for once on each Job Order regardless of the number of work days required to complete the work at a specific work location. A work location is defined in Section C, Scope of Work of these Job Special Provisions. Payment will be made for mobilization as follows:

Item 618-99.02	Mobilization – Coldmilling and Resurfacing (15-1000 tons)	Each
Item 618-99.02	Mobilization – Coldmilling and Resurfacing (Over 1000 tons)	Each
Item 618-99.02	Mobilization – Resurfacing Only (15-1000 tons)	Each
Item 618-99.02	Mobilization – Resurfacing Only (Over 1000 tons)	Each
Item 618-99.02	Mobilization – Material Transfer Vehicle	Each

GG. PREVIOUS JOB ORDER INFORMATION

1.0 Previous Job Orders. Job order information, consisting of quantities and pay items that were issued for past contracts will be available from the Project Contact upon the bidder's written request. This information does not constitute part of the bid or contract documents. It is provided for the bidder's use during bid preparation, and shall not be considered a representation of actual job orders to be issued during construction for this contract. Furnishing this information does not relieve a bidder or contractor from the responsibility of estimating the number and types of job orders that will be issued for future contracts. The bidder or contractor shall assume the risk of error if the information is used for any purposes for which the information was not intended. The Commission makes no representation as to the accuracy or reliability of the information, since the information may not be representative of the sealed contract documents. Any assumptions the bidder or contractor may make from this information is at the bidder or contractor's risk; none are intended by the Missouri Highways and Transportation Commission. The bidder or contractor assumes the sole risk of liability or loss if the bidder or contractor does rely on this information to its detriment, delay or loss.

HH. RAILROAD REQUIREMENTS

1.0 The right of way of various Railroads, herein called "Railroad", are located within the limits of this project. However, this project has been developed with the specific intention that no involvement with the Railroad's facilities, traffic or right of way is required for the performance of the contractual work herein. The work to be performed over the Railroad's right of way shall not interfere with the Railroad's operations or facilities. Under these circumstances, the requirements of Sec 104.12.3, Sec 104.12.8 through 104.12.10.5 (inclusive), and Sec 107.13.4 shall not apply.

2.0 Should the contractor violate this condition of no railroad involvement, all terms and conditions of the interaction with the Railroad shall be solely between the Railroad and the contractor.

II. SAFETY PLAN

1.0 Description. This contractor shall submit to the engineer a project Safety Plan (SP) for all work performed by the contractor and all subcontractors. The purpose of the SP is to encourage and enable all work to be performed in the safest possible manner and that all parties involved are aware of their individual responsibility for safety on the jobsite.

1.1 The SP shall be completed by the contractor and provided to the engineer prior to the beginning of any construction activity or phase on the project.

1.2 The contractor shall designate a person to serve as Project Safety Manager (PSM). The PSM shall be responsible for implementing and overseeing the SP. The PSM is not required to be present on the project at all times, but must be available to address safety issues and needs.

1.3 The PSM shall make revisions to the SP as necessary. Any new project activities or phases shall be included in the SP prior to work beginning on that activity or phase.

1.4 An example Safety Plan is available at: www.modot.org/safetyplan

2.0 Emergency Preparedness. The SP shall outline and detail for all workers, the specific procedures and actions necessary to respond to a jobsite emergency and the measures taken to communicate these requirements to all workers.

2.1 The SP shall include a list of local emergency contacts including phone numbers. A copy of the emergency contact list shall be accessible to workers.

2.2 In the case where there is no cellular or land line phone service at the jobsite, the SP shall identify how to reach the nearest available phone service.

3.0 Project Safety Analysis. The SP should contain a basic Project Safety Analysis (PSA) that outlines the actions necessary to complete each activity or phase of the project. The SP shall include a general description of the primary activities or steps required to safely complete the project.

3.1 Each activity should also include a general description of the work involved along with the known risks associated with the activity. In addition the PSA should outline the controls for those risks, including any Personal Protection Equipment (PPE) requirements for that activity or phase, and whether or not the activity or phase requires a specific safety meeting prior to beginning the activity or phase.

3.2 Submittal of the PSA for all activities or phases is not required with the initial submittal of the SP; however, the PSA for each activity or phase shall be completed prior to the beginning of that activity or phase.

4.0 Safety Meetings. The SP shall include the types of safety meetings that will be required of and conducted by the contractor.

5.0 Safety Training. The SP shall identify the required safety training provided to the contractor's personnel. The contractor shall require that the appropriate safety training for the contractor's personnel is completed prior to the beginning of work on each activity or phase.

5.1 The SP shall identify the recommended safety training needs and PPE for MoDOT employees who will be exposed to the work activities. MoDOT will provide safety training and PPE to MoDOT employees based on MoDOT safety policies.

6.0 Payment. There will be no direct payment for compliance with this Safety Plan provision.

TABLE G.3. Example 3 - IDIQ Contract Language

Georgia Department of Transportation



Georgia Department of
Transportation

Request for Qualified Contractors

To Provide

Emergency Inclement Weather Support

For

Georgia Department of Transportation
Atlanta, Georgia

RFQC 48400-130-0000000007

REQUEST FOR PROPOSALS
Emergency Inclement Weather Support
48400-130-0000000007
Georgia Department of Transportation
Atlanta, Georgia

I. BACKGROUND AND PURPOSE

The Georgia Department of Transportation (GDOT or Department) is seeking Contractors interested in providing assistance to GDOT during certain times of extreme inclement weather conditions. The Purpose of this Request for Qualified Contractors (RFQC) solicitation is to establish a list of qualified contractors to perform emergency inclement weather support throughout the state of Georgia. All Respondents to this RFQC are subject to instructions communicated in this document, and are cautioned to completely review the entire document and follow instructions carefully. GDOT reserves the right to modify existing provisions or include additional provisions, which are not addressed herein. GDOT reserves the right to reject any or all responses, and to waive technicalities and informalities at its discretion. All respondents to this RFQC are subject to instructions communicated in this document and the terms and conditions herein.

IMPORTANT- A RESTRICTION OF COMMUNICATION IS IN EFFECT FOR THIS PROJECT. From the advertisement date of this solicitation until successful respondents are selected and the selection is announced, respondents are not allowed to communicate about this solicitation or scope with any staff of GDOT, including the Commissioner and Board Members, except for submission of questions as instructed in the RFQC, or as provided by any existing work agreement(s). For violation of this provision, GDOT reserves the right to reject the Submittal of the offending Respondent.

II. SCOPE OF SERVICES

Occasionally the State and its Highways are impacted by extreme, emergency weather events outside the Department's usual level of preparedness. The intent of this solicitation is to provide opportunities for Contractors who have equipment and manpower available to assist with such extraordinary events to assist GDOT in clearing roadways during such weather conditions.

GDOT expects to award multiple contracts for the services herein and reserves the right to utilize the services of all, some, or none of the qualified Contractors. In addition, award of a contract does NOT guarantee any minimum or maximum amount of actual business volume. GDOT will enter into an Indefinite Delivery, Indefinite Quantity (IDIQ) or Task Order contract with any Contractor that desires to provide said service and can demonstrate to the satisfaction of GDOT that they are capable of providing such service at the capacity desired.

Initial qualified contractor determination notwithstanding, it is the intent of GDOT to solicit and enhance the qualified contractor pool beyond the response date provided as part of this RFQC posting.

A. Work

When weather circumstances warrant, including up to 48 hours in advance of an expected weather event, as determined by the Commissioner, the Contractor would make manpower forces and equipment available to the Department to assist in emergency snow and ice removal and other weather related maintenance activities.

The Contractor shall make a good faith effort to perform services requested, on behalf of the Department, in a good and workmanlike manner. The Contractor shall comply with the laws of the

State of Georgia, and any other applicable laws, ordinances, rules, and regulations of any government entity pertaining to services under this Agreement.

The Department shall direct and coordinate the Contractor's activities as to specific activities and locations where services are to be provided and will make every reasonable effort to provide the Contractor 48 hours notice of intent to mobilize. In addition the Engineer will decide the areas or roads within the district, to which the Contractor(s) will be assigned. Efforts will be made to assign designated routes in advance.

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance. The Contractor will not be permitted to suspend his operations except for reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operations.

B. Personnel

At all times during the activated state the Contractor shall provide one permanent employee who shall have the authority and capability for overall responsibility of the project and who shall be personally available 24 hours a day while the work is in progress.

Operators of all trucks shall be properly licensed as required by the State of Georgia. The Contractor shall provide enough operators, per piece of equipment provided under this agreement, to operate 24 hours per day during an emergency event. Operators are limited to a maximum 12-hour shift within a 24-hour period.

At the execution of the contract for the services the Contractor shall identify a Project Manager who shall act as and be the Contractor's representative between GDOT and the Contractor. If a replacement is required for the Contractor Project Manager, the Contractor shall communicate the needed to the Engineer.

C. Equipment

The Contractor shall make a good faith effort to furnish to the Department of Transportation the fully operated equipment needed during inclement weather to perform activities at such time, and at such locations as directed by the Engineer.

The Contractor shall furnish equipment in good operating condition and operated by properly trained and qualified personnel. The personnel operating the equipment shall be employees of the Contractor and the Contractor shall be responsible for employees during the performance of the contract. The personnel shall be subject to the directions of the Department of Transportation. The Department of Transportation may refuse delivery or may return any equipment found to be defective and/or inadequately operated.

All trucks provided by the Contractor which are used to perform the Work shall be equipped with warning lights similar to those used by the Department. Communication devices shall be available in each piece of equipment so the operators can communicate with the Contractor's designated supervisor. All equipment shall also be equipped with reverse gear warning devices.

The Contractor shall be responsible for the equipment provided in this contract at all times and at all locations during the term of the contract. The Contractor shall have no claim against the Department of Transportation for any expense involving damage or loss to the Contractor's equipment (including vandalism, theft, fire and acts of God) arising out of, or relating to, work performed under this agreement.

III. ADDITIONAL INFORMATION

Training

The Department may provide training session(s) and dry run(s) to familiarize all local governments and Department personnel (both operators and supervisors) with snow removal and ice control methods, equipment, and assigned routes. Training session(s) and dry run(s) will be scheduled and completed as determined by the Engineer. The Department will invite the Contractor to send a representative and provide the Contractor with a minimum two (2) weeks notice of scheduled training sessions and dry runs.

IV. NOTIFICATION OF INTEREST TO PARTICIPATE

Any Contractor interested in providing the above mentioned services and would like to participate in this opportunity should contact the listed Contract Specialist, who will be handling this proposal via e-mail at:

Thomas Hester, e-mail: thhester@dot.ga.gov

Please reply in the following manner:

In the subject please type – Notice of Interest – RFQC 48400-130-0000000007

Please make a general statement of your interest and include in the message your company name, address, primary contact information (name, phone & email)

After GDOT receives your notice of interest you will receive the necessary forms to complete that will be submitted to GDOT for evaluation leading up to a contract for services. All respondents will be considered.

V. SUBMITTAL OF QUESTIONS AND REQUESTS FOR CLARIFICATION

It is the responsibility of each respondent to examine the entire proposal, seek clarification in writing, and review its submittals for accuracy before submitting. Once the submission has been received all information will be final. The Department will not request clarification from any single individual proposer regarding their submission, but reserves the right to ask, collectively, all parties that have submitted proposals for additional information. Questions about any aspect of the RFQC, or the service, shall be submitted in writing (via e-mail) to:

Thomas Hester, Contract Specialist
E-mail: thhester@dot.ga.gov

All relevant and significant questions that have been submitted in writing will be compiled and answered in writing, and issued directly to all participating proposers via E-mail

V. ADDITIONAL TERMS AND CONDITIONS

A. Submittal Costs and Confidentiality

All expenses for preparing and submitting responses are the sole cost of the party submitting the response. The Department is not obligated to any party to reimburse such expenses. All submittals upon receipt become the property of the Department. Labeling information provided in submittals “proprietary” or “confidential”, or any other designation of restricted use will not protect the information from public view. Subject to the provisions

of the Open Records Act, the details of the proposal documents will remain confidential until final award.

B. Award Conditions

This request is not a solicitation of bids. This request and any proposal submitted in response is not binding upon the Department and does not obligate the Department to procure or contract for any services. Neither the Department nor any party submitting a response will be bound unless and until a written contract mutually accepted by both parties is negotiated as to its terms and conditions and is signed by the Department and a party containing such terms and conditions as are negotiated between those parties. The Department then intends to conduct negotiations with party(s) to determine if an acceptable contract may be reached. **The Department desires to have as many available resources as possible and as such considers this a continuous open procurement. The Department reserves the right to consider any additional contractors expressing interest beyond the closing date which meet all requirements/criteria contain herein for contract award.**

C. Small and Minority Business Enterprise

It is the policy of the State of Georgia that small businesses, female-owned businesses and minority businesses have a fair and equal opportunity to participate in the State purchasing process. Therefore, the Department encourages all small businesses, female-owned businesses and minority-owned businesses to participate in contracts to provide services.

D. Non-Discrimination

The Georgia Department of Transportation in accordance with Title VI of the Civil Rights Act of 1964 and 78 Stat. 252, 42 USC 2000d--42 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all proposers that it will affirmatively ensure that any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

E. Statement of Agreement

With submission of a response to this request, the Proposer agrees that he/she has carefully examined the RFQC, and the Proposer agrees that it is the Proposer's responsibility to request clarification on any issues in any section of the RFQC with which the Proposer disagrees or needs clarified. The Proposer also understands that failure to mention these items in the response will be interpreted to mean that the Proposer is in full agreement with the terms, conditions, specifications and requirements in the therein. With submission of a response, the Proposer hereby certifies: (a) that this response is genuine and is not made in the interest or on behalf of any undisclosed person, firm, or corporation; (b) that Proposer has not directly or indirectly included or solicited any other Proposer to put in a false or insincere response; (c) that Proposer has not solicited or induced any person, firm, or corporation to refrain from sending a response.

F. Right to Cancel or Change RFQC

GDOT reserves the right to cancel any and all solicitations where it is determined to be in

the best interest of the Department to do so. GDOT reserves the right to increase, reduce, add or delete any item in this solicitation as deemed necessary.

It is the responsibility of all firms interested in submitting a proposal for this advertisement to routinely check the posting on the Georgia Procurement Registry for any revisions to this solicitation.

TABLE G.4. Example 4 - IDIQ Contract Language

Louisiana Department of Transportation

STATE OF LOUISIANA
Department of Transportation and Development

REQUEST FOR PROPOSALS
FOR
RFP Solicitation No. 3000002501

Retainer Contract for Debris Removal
And Disposal Monitoring Resources

District 02

March 7, 2014

**Proposal Submission Deadline:
Tuesday April 8, 2014 by 3:00 p.m. CST**

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1.0 GENERAL INFORMATION

1.1 Purpose

This Request for Proposals (RFP) is issued by the Louisiana Department of Transportation and Development (herein referred to as the DOTD) to Consulting Firms interested in assisting DOTD with the necessary staffing and equipment resources necessary to supplement DOTD resources in the monitoring of district-wide debris removal and disposal contracts as a result of nature or man-made disaster(s)/event(s).

One Prime-Contractor (Contractor) shall be selected for the DOTD district governed by this contract. The Contractor may not subcontract the specified services without the written agreement of DOTD.

1.2 Background

The 2005 hurricane season (storms Katrina and Rita) and the 2008 hurricane season (storms Gustav and Ike) impacted the State of Louisiana (State) with a magnitude of damage that will take years of recovery. In addition to this recovery process, the State must also be ready to manage any new disaster that may happen. Lessons learned from Katrina, Rita, Gustav and Ike prove that disaster planning and management are critical to protect the citizens and property of the State. The need for consulting services to help DOTD prepare for and respond to a disaster is critical. The State seeks to pre-arrange monitoring services that could step in and augment DOTD with inspection services for debris removal service.

1.3 Scope of Services

The Contractor will provide the necessary staffing and equipment resources to supplement DOTD resources in the monitoring of district-wide debris removal and disposal contracts as a result of nature or man-made disaster(s)/event(s). On as needed basis, the Contractor will be given a Task Order to provide necessary staffing and equipment detailed in the Task Order to:

- Assist and support the assigned DOTD Project Manager/Project Engineer(s) in the inspection and monitoring of district-wide Debris Removal and Disposal Contracts on federal aid qualifying and non-federal aid qualifying routes.
- Provide an electronic database to process, store and query all data including photographs, field documents, haul truck certification, etc.

The Contractor will have forty-eight (48) hours from notification date to mobilize resources to provide the services as stated in the Task Order.

The Selected Contractor shall furnish qualified and trained personnel and equipment as specified in detail in Attachment III (Experience and Training) in order to accomplish the specified services in Attachment V (Specified Services).

1.4 Performance Goals and Measures

Goals and Objectives:

DOTD has many challenges related to Debris Removal and Disposal Monitoring. These challenges also afford DOTD with many opportunities to improve our services to the public through the utilization of improved practices by our selected Contractors. These improved practices shall include accurate completion of all required documentation which will result in increasing the retainage of Federal reimbursements. Another objective is to eliminate waste by decreasing the amount of unnecessary work by DOTD employees required to correct inaccurate documentation.

The overall goal is to not only select a qualified monitoring Contractor but to select one that will provide the services that will allow DOTD to realize these objectives.

Performance Measures:

The performance of the contract will be measured by the DOTD's Project Manager, authorized on behalf of the State, to evaluate the Contractor's performance against the criteria contained in Attachment V (Specified Services) and a statistical sampling and analysis of electronic haul ticket data for accuracy and completeness as defined in Section 2.4 (Definitions).

1.5 Monitoring Plan

Monitoring Plan:

The DOTD's Project Manager and/or designee will monitor the services provided by the Contractor and the expenditure of funds under this contract. The DOTD's Project Manager and/or designee will be primarily responsible for the day-to-day contact with the Contractor and the day-to-day monitoring of the Contractor's performance.

1.6 Project Manager

A Project Manager has been named and that information will be provided to the Contractor.

2.0 ADMINISTRATIVE INFORMATION

2.1 Term of Contract

The period of any contract resulting from this RFP is tentatively scheduled to begin on or about **August 1, 2014**, and continue through **July 31, 2017**. The DOTD has the right to contract for up to thirty-six (36) months upon appropriate approvals.

DOTD reserves the right to cancel Contract per Termination provisions (Item 4: 4.1, 4.2, or 4.3) detailed in Attachment VII (Sample Contract).

2.2 Pre-proposal Conference

NOT APPLICABLE FOR THIS SOLICITATION.)

2.3 Proposer Inquires

Written questions regarding RFP requirements or Scope of Services must be submitted by **Fax to 225-379-1857** or **Email contractservices@la.gov** addressed to the RFP Coordinator as listed below.

Mr. Alan Dale, P.E.
Consultant Contract Services Administrator
1201 Capitol Access Road, **Room 405-T**
Baton Rouge, LA 70802-4438 or
Post Office Box 94245
Baton Rouge, Louisiana 70804-9245
Telephone: (225) 379-1989
Fax: 225-379-1857
contractservices@la.gov

This RFP is available in electronic form at
<http://webmail.dotd.state.la.us/AgreStat.nsf/WebView?OpenPage> and
<http://wwwprd.doa.louisiana.gov/osp/lapac/pubmain.asp>

or in printed form by submitting a written request to the RFP Coordinator.

The DOTD will consider written inquiries and requests for clarification of the content of this RFP received from potential proposers. Written inquiries must be received by **3:00 p.m. CST** on the date specified in the Schedule of Events. *DOTD's email computer server clock will be considered the official time/date on email inquiries.* The DOTD reserves the right to modify the RFP should a change be identified that is in the best interest of the DOTD.

Any and all questions directed to the RFP Coordinator shall be deemed to require an official response. Official responses to each of the questions presented by the proposer shall be posted on the DOTD Consultant Contract Services

<http://webmail.dotd.state.la.us/agrestat.nsf/WebAddendums?OpenPage>

and LaPAC websites

<http://wwwprd.doa.louisiana.gov/osp/lapac/pubmain.asp>

as an Addendum to the RFP by the deadline shown in the Schedule of Events.

Only the RFP Coordinator has the authority to officially respond to proposer's questions on behalf of the DOTD. Any communications from any other individuals are not binding to the DOTD.

2.4 Definitions

- A. Mandatory Requirements – The terms “shall”, “will”, and “must” denote mandatory requirements.
- B. Permissible Action – The terms “should”, “can” and “may” denote an advisory or allowable action.
- C. Agency – Any department, commission, council, board, office, bureau, committee, institution, agency, government, corporation, or other establishment of the executive

branch of this state authorized to participate in any contract resulting from this solicitation.

- D. Contractor-the successful proposer who is awarded a contract.
- E. Proposer-an individual or organization submitting a proposal in response to an RFP.
- F. VHI - Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Participation
- G. Discussions – For the purposes of this RFP, a formal, structured means of conducting written or oral communications with responsible proposers who submit proposals determined in writing to be reasonably susceptible of being selected for award.
- H. Accurate and Complete – For the purposes of this RFP, the term Accurate and Complete shall refer to the entering of information on haul tickets provided by the Debris Removal Contractor. All fields of the haul tickets shall be completed with the correct information in order to be considered as accurate and complete. See sample haul ticket Attachment VI.

2.5 Schedule of Events

<u>Event</u>	<u>Date</u>
Advertise RFP and mail public announcements	Friday, March 7, 2014
Deadline for receipt of Written inquiries	March 14, 2014 3:00 p.m. CST
Issue responses to Written inquiries	March 21, 2014
Deadline for receipt of Proposals	Tuesday, April 8, 2014 3:00 p.m. CST
Oral Interview/Presentation (if applicable)	April 16, 2014 (on or about)
Announce Award of Contractor Selection	April 24, 2014 (on or about)
Contract Execution	May15, 2014 (on or about)

NOTE: DOTD reserves the right to amend and/or change this schedule of RFP events, as it deems necessary.

3.0 PROPOSAL INFORMATION

3.1 Minimum Qualifications of Proposer

The proposers shall have, prior to the deadline for receipt of proposals, a minimum of:

- The proposal must demonstrate that the proposer has maximum number of staff per classification as required in Attachment IV (Minimum Classification Requirements) which possesses the minimum training courses as shown in Attachment III (Experience and Training) to provide monitoring services for debris removal.

The Proposer shall ensure that their proposals contain sufficient information for DOTD to make its determination by presenting acceptable evidence of the above to perform the services called for by the contract.

3.2 Determination of Responsibility

Determination of the Proposer's responsibility relating to this RFP shall be made according to the standards set forth in LAC 34: 136. DOTD must find that the Selected Proposer:

- Has adequate financial resources for performance, or has the ability to obtain such resources as required during performance;
- Has the necessary experience, organization, technical qualifications, skills, and facilities, or has the ability to obtain them;
- Is able to comply with the proposed or required time of delivery or performance schedule;
- Has a satisfactory record of integrity, judgment, and performance; and
- Is otherwise qualified and eligible to receive an award under applicable laws and regulations.

Proposers should ensure that their proposals contain sufficient information for the DOTD to make its determination by presenting acceptable evidence of the above to perform the contracted services.

3.2.1 Right to Prohibit Award

In accordance with the provisions of R.S. 39:2192, in awarding contracts after August 15, 2010, any public entity is authorized to reject a proposal or bid from, or not award the contract to, a business in which any individual with an ownership interest of five percent or more, has been convicted of, or has entered a plea of guilty or nolo contendere to any state felony or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950, professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39, or the Louisiana Procurement Code under the provisions of Chapter 17 of Title 39.

3.3 RFP Addenda

DOTD reserves the right to change the schedule of events or revise any part of the RFP by issuing an addendum to the RFP at any time.

Addenda, if any, will be posted on the DOTD Consultant Contract Services and LaPac websites: <http://webmail.dotd.louisiana.gov/agrestat.nsf/WebAddendums?OpenPage> <http://wwwprd.doa.louisiana.gov/osp/lapac/pubmain.asp>. It is the responsibility of the proposer to check the website for addenda to the RFP, if any.

3.4 Waiver of Administrative Informalities

DOTD reserves the right, at its sole discretion, to waive minor administrative informalities contained in any proposal.

3.5 Proposal Rejection/RFP Cancellation

Issuance of this RFP in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all proposals submitted and/or cancel this announcement if it is determined to be in DOTD's best interest.

3.6 Withdrawal of Proposal

A proposer may withdraw a proposal that has been submitted at any time up to the date and time the proposal is due. To accomplish this, a written request signed by the authorized representative of the proposer must be submitted to the RFP Coordinator.

3.7 Subcontracting Information

The DOTD shall have a single prime contractor as the result of any contract negotiation, and that prime contractor shall be responsible for all deliverables specified in the RFP and proposal. This general requirement notwithstanding, proposers may enter into subcontractor (**which includes Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Participation**) arrangements, however, should acknowledge in their proposals total responsibility for the entire contract.

If the proposer intends to subcontract for portions of the work, the proposer should identify any subcontractor relationships and include specific designations of the tasks to be performed by the subcontractor. Information required of the proposer under the terms of this RFP is also required for each subcontractor. The prime contractor shall be the single point of contact for all subcontract work.

Unless provided for in the contract with the DOTD, the prime contractor shall not contract with any other party for any of the services herein contracted without the express prior written approval of the DOTD.

3.8 Ownership of Proposal

All materials submitted in response to this request become the property of DOTD. Selection or rejection of a proposal does not affect this right.

3.9 Proprietary Information

Only information which is in the nature of legitimate trade secrets or non-published financial data may be deemed proprietary or confidential. Any material within a proposal identified as such must be clearly marked in the proposal and will be handled in accordance with the Louisiana Public Record Act, R.S. 44: 1-44 and applicable rules and regulations. Any proposal marked as confidential or proprietary in its entirety may be rejected without further consideration or recourse.

3.10 Cost of Preparing Proposals

DOTD shall not be liable for any costs incurred by Proposers prior to issuance of or entering into a contract. Costs associated with developing the proposal, preparing for oral presentations, and any other expenses incurred by the proposer in responding to this RFP are entirely the responsibility of the Proposer, and shall not be reimbursed in any manner by DOTD.

3.11 Errors and Omissions in Proposal

DOTD shall not be liable for any errors in proposals. DOTD reserves the right to make corrections or amendments due to patently obvious errors in proposals by DOTD or the proposer. DOTD, at its option, has the right to request clarification or additional information from the proposers.

3.12 Contract Award and Execution

DOTD reserves the right to enter into a Contract without further discussion of the proposal submitted based on the initial offer received.

DOTD reserves the right to contract for all or a partial list of services offered in the proposal.

The RFP and proposal of the selected proposer shall become part of any contract initiated by DOTD.

The selected Proposer shall be expected to enter into a contract that is basically the same as the sample contract included in Attachment VII (Sample Contract). In no event shall a Proposer submit its own standard contract terms and conditions as a response to this RFP. The Proposer should submit with its proposal any exceptions or exact contract deviations that its firm wishes to negotiate. Negotiations may begin with the announcement of the selected Proposer.

If the contract negotiation period exceeds *ten business days* or if the selected proposer fails to sign the final contract within *ten business days* of delivery of it, DOTD may elect to cancel the award and award the contract to the next-highest-ranked proposer.

3.13 Code of Ethics

Proposers shall be responsible for determining that there will be no conflict or violation of the Ethics Code if their company is awarded the contract. The Louisiana Board of Ethics is the only entity which can officially rule on ethics issues.

4.0 RESPONSE INSTRUCTIONS

4.1 Proposal Submission

Firms/individuals who are interested in providing services requested under this RFP must submit a proposal containing the information specified in this section. The proposal must be received in hard copy (printed) version by the RFP Coordinator on or before *3:00p.m.* CST on the date specified in the Schedule of Events. FAX or e-mail submissions are not acceptable. Proposers mailing their proposals should allow sufficient mail delivery time to ensure receipt of their proposal by the time specified. The proposal package must be delivered at the proposer's expense to:

Mr. Alan A. Dale, P.E.
Consultant Contract Services Administrator
1201 Capitol Access Road, **Room 405-T**
Baton Rouge, Louisiana 70802-4338
Telephone: (225) 379-1989
Fax: (225) 379-1857

It shall be solely the responsibility of each Proposer to assure that their proposal is delivered at the specified place and prior to the deadline for submission. Proposals, which for any reason not received timely, will not be considered.

The proposal should be identified with **RFP Solicitation No. 3000002501 and Project Name: Retainer Contract for Debris Removal and Disposal Monitoring Resources, DISTRICT 02** and shall be submitted **prior to 3:00 p.m. CST on Tuesday, April 8, 2014.**

The DOTD requests that **six** copies of the proposal be submitted to the RFP Coordinator at the address specified. At least **one** copy of the proposal shall contain original signatures of those company officials or agents duly authorized to sign proposals or contracts on behalf of the organization. **A certified copy of a board resolution granting such authority should be submitted if proposer is a corporation.** The copy of the proposal with original signatures will be retained for incorporation in any contract resulting from this RFP. Any proposer failing to submit any of the mandatory information requested in this RFP shall be considered non-responsive.

Name(s) of the Proposer listed should match the name(s) filed with the Louisiana Secretary of State, Commercial Division, Corporations Section, if proposer is a corporation.

4.2 Proposal Format

Proposers should respond to this RFP with a Technical Proposal (as specified in Section 5, Proposal Content) and Cost Proposal (as specified in Section 5.5, Cost Information). No pricing information should be included in the Technical Proposal.

4.3 Cover Letter

A cover letter should be submitted on the Proposer's official business letterhead explaining the intent of the Proposer.

4.4 Technical and Cost Proposal

Proposals should be submitted as specified in Section 5, and should include enough information to satisfy evaluators that the Proposer has the appropriate experience and qualifications to perform the scope of services as described herein. Proposers should respond to all requested areas.

4.5 Certification Statement

The proposer shall sign and submit the Certification Statement shown in Attachment II (Certification Statement).

5.0 PROPOSAL CONTENT

5.1 Executive Summary

This section should serve to introduce the purpose and scope of the proposal. It should include administrative information including, at a minimum, response date, Proposer contact name, phone number, email address and the stipulation that the proposal is valid for a time period of *one year* from the date of submission. This section should include a summary of the Proposer's qualifications and ability to meet the DOTD's overall requirements.

It should include a positive statement of compliance with the contract terms. If the Proposer cannot comply with any of the contract terms, an explanation of each exception should be supplied. *The Proposer should address the specific language in Attachment VII Sample Contract and submit whatever exceptions or exact contract modifications that their firm may seek.* While final wording shall be resolved during contract negotiations, the intent of the provisions shall not be substantially altered.

5.2 Corporate Background and Experience

The purpose of this item is to provide information to evaluate the relevant experience, resources, and qualifications of the proposer.

In this section the proposer should provide:

- a. An *organizational chart* displaying overall organizational structure.
- b. A *record of prior successful experience* in services similar to that sought through this RFP. Proposals should include the number and a concise description of projects and inclusive dates successfully completed. Proposals shall specify the extent of responsibility of key proposed project staff on these prior projects
- c. A *customer references listing* for related work completed in the last twenty-four (24) months. Each reference shall include the name and telephone number of a contact person.
- d. A *Statement of the Proposer's other business or contractual obligations* and the involvement in any past or current litigation.
- e. A *Statement that the firm is capable of providing the needed services over the thirty six (36) month project period.*

DOTD reserves the right to contact references to verify information in the proposal.

Proposers should clearly describe their ability to meet or exceed the *minimum* qualifications in Section 3.1.

5.2.1 Veteran/Hudson Small Entrepreneurship Program Participation

Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Participation

The State of Louisiana Veteran and Hudson Initiatives are designed to provide additional opportunities for Louisiana-based small entrepreneurships (sometimes referred to as LaVet's and SE's respectively) to participate in contracting and procurement with the state. A certified Veteran-Owned and Service-Connected Disabled Veteran-Owned small entrepreneurship (LaVet) and a Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) small entrepreneurship are businesses that have been certified by the Louisiana Department of Economic Development. All eligible vendors are encouraged to become certified. Qualification requirements and online certification are available at https://smallbiz.louisianaforward.com/index_2.asp.

Ten percent (10%) of the total evaluation points on this RFP are reserved for proposers who are themselves a certified Veteran or Hudson Initiative small entrepreneurship or who will engage the participation of one or more certified Veteran or Hudson Initiatives small entrepreneurships as subcontractors.

Reserved points shall be added to the applicable proposers' evaluation score as follows:

Proposer Status and Reserved Points

- Proposer is a certified small entrepreneurship: Full amount of the reserved points
- Proposer is not a certified small entrepreneurship but has engaged one or more certified small entrepreneurships to participate as subcontractors or distributors. Points will be allocated based on the following criteria:

- the number of certified small entrepreneurship to be utilized
- the experience and qualifications of the certified small entrepreneurship(s)
- the anticipated earnings to accrue to the certified small entrepreneurship(s)

If a proposer is not a certified small entrepreneurship as described herein, but plans to use certified small entrepreneurship(s), proposer shall include in their proposal the names of their certified Veteran Initiative or Hudson Initiative small entrepreneurship subcontractor(s), ***a description of the work each will perform, and the dollar value of each subcontract.***

During the term of the contract and at expiration, the Contractor will also be required to report Veteran-Owned and Service-Connected Disabled Veteran-Owned and Hudson Initiative small entrepreneurship subcontractor or distributor participation and the dollar amount of each.

The statutes (R.S 39:2171 et. seq.) concerning the Veteran Initiative may be viewed at <http://legis.la.gov/lss/lss.asp?doc=671504>; and the statutes (R.S 39:2001 et. seq.) concerning the Hudson Initiative may be viewed <http://legis.la.gov/lss/lss.asp?doc=96265>. The rules for the Veteran Initiative (LAC 19:VII. Chapters 11 and 15) and for the Hudson Initiative (LAC 19:VIII Chapters 11 and 13) may be viewed at <http://www.doa.louisiana.gov/osp/se/se.htm>.

A current list of certified Veteran-Owned and Service-Connected Disabled Veteran-Owned and Hudson Initiative small entrepreneurship may be obtained from the Louisiana Economic Development Certification System at https://smallbiz.louisianaforward.com/index_2.asp. Additionally, a list of Hudson and Veteran Initiative small entrepreneurship, which have been certified by the Louisiana Department of Economic Development and who have opted to register in the State of Louisiana LaGov Supplier Portal https://lagoverpvendor.doa.louisiana.gov/irj/portal/anonymous?guest_user=self_reg may be accessed from the State of Louisiana Procurement and Contract (LaPAC) Network <http://wwwprd.doa.louisiana.gov/osp/lapac/vendor/srchven.asp>. When using this site, determine the search criteria (i.e. alphabetized list of all certified vendors, by commodities, etc.) and select SmallE, VSE, or DVSE.

5.3 Proposed Project Staff

The Proposer should provide detailed information about the experience and qualifications of the Proposer's assigned personnel considered key to the success of the project.

This information should include education, training, technical experience, functional experience, specific dates and names of employers, relevant and related experience, past and present projects with dates and responsibilities and any applicable certifications. This should also specifically include the role and responsibilities of each person on this project, their planned level of effort, their anticipated duration of involvement, and their on-site availability. Customer references (name, title, company name, address and telephone number) should be provided for the cited projects in the individual resumes. Interested candidates should submit cover letter, resume, and list three professional references (with contact information for each) for key personnel.

Note: If substitutions for training requirements are offered for any key personnel, the proposer shall:

- Include a copy of the formal training program that was developed or provided to the key personnel by the proposer, or
- Submit a detailed certified work and training history including reference information indicating sufficient work experience and training.

If a sub-Contractor will be used, the proposer should clearly identify any sub-Contractor arrangements, and provide similar information as requested for the Proposer's staff.

5.4 Approach and Methodology

The Proposer should provide:

- Proposer's understanding of the nature of the project and how its proposal will best meet the needs of the DOTD.
- Its functional approach in providing the services.
- Its functional approach in identifying the tasks necessary to meet requirements.
- A description of the approach to Project Management and Quality Assurance.
- A proposed Project Work Plan that reflects the approach and methodology, tasks and services to be performed, deliverables, timetables, and staffing.

5.5 Cost Information

- A. The proposer shall provide a billable rate (which includes, but not limited to straight time labor, overtime labor, per diem, general overhead, equipment, field overhead, any payroll additive expenses and profit) for all classifications proposed to perform the services described in Section 1.3. Mileage expenses do not have to be included in the billable hourly rates of the classification. **DOTD will not reimburse Contractor employee for time spent on lunch or other breaks to which the worker(s) may be entitled under Contractors employee/employer relationship contract.**
- B. Any mileage expense will be in accordance with the most current State's Travel Regulations as detailed in the Louisiana Travel Guide. (Travel Guide/PPM 49). Mileage shall be defined as beginning at the first scheduled work site for the day and ending at the last work site for the day. Travel reimbursement shall be limited to 50 miles per staff member per day. ***Exception to this limitation may be applied to Terrebonne, Lafourche, Jefferson and Plaquemines Parishes due to relative distance factors involved. In these parishes the actual mileage may be allowed to exceed 50 miles however, will not be authorized to exceed the state's daily maximum reimbursable travel regulations. Additionally, this exception is contingent upon receipt of documentation of dates of work, employees' names, beginning and ending mileage per day and work location. Approval for this exception must be requested in writing and in advance and approved by the District Debris Manager and the State Debris Manager.***
- C. The proposer shall also provide a **total** cost summary for the all of the services described in Section 1.3. Attachment 1- Price Proposal must include a Grand Total for billable rates per classification. **The Grand total Price will be the cost used for evaluation purposes described in 6.5.**

D. The Proposer shall use **Attachment I – Price Proposal** as an example for submitting pricing information.

6.0 EVALUATION AND SELECTION

6.1 *Evaluation Team*

The evaluation of proposals will be accomplished by an evaluation team, to be designated by the DOTD, which will determine the proposal most advantageous to the DOTD, taking into consideration price and the other evaluation factors set forth in the RFP.

6.2 *Administrative and Mandatory Screening*

All proposals shall be reviewed to determine compliance with administrative and mandatory requirements as specified in the RFP. Proposals found not to be in compliance shall be rejected from further consideration.

6.3 *Clarification of Proposals*

DOTD reserves the right to seek clarification of any proposal for the purpose of identifying and eliminating minor irregularities or informalities.

6.3 *Oral Presentations/Discussions May be required*

The DOTD shall require all proposers reasonably susceptible of being selected for the award to provide an oral presentation of how it proposes to meet the agency's program objectives.

Proposers who are reasonably susceptible of receiving an award will be notified by email with time, date and location for Oral Presentation/Discussion. Proposers must include their email address in their proposal.

The purpose of this presentation is to give proposers an opportunity to explain Proposal Content as described in the proposer's written response to Section 5.0 the RFP. *Proposers may not offer additional products or alter their response to the RFP at this time.* Each Proposer will be given forty (40) minutes for Oral Presentation and an additional 20 minutes to answer any questions.

Criteria 6, Each proposers Oral Presentation shall be rated with 0 being the lowest score and the highest possible score 15 and added to the Proposer's score for Criteria 1-5 to determine a total point score.

6.5 *Evaluation and Review*

Proposals that pass the preliminary screening and mandatory requirements review will be evaluated based on information provided in the proposal. The evaluation will be conducted according to the following.

Each proposal shall be rated for Criteria **one** through **three**, with 0 being the lowest score and the highest possible score as shown for each category.

Criteria 4, Hudson/Veteran Small Entrepreneurship shall be rated as specified in 6.5.1 Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Participation.

Criteria 5, Price shall be rated as follows: The proposer with the lowest total price shall receive 25 points. Other proposers will receive points for price based upon the following formula:

$$\text{Price Score} = \frac{\text{Lowest Proposed Total Price} \times 25}{\text{Proposer's Total Price}}$$

The Evaluation Team will evaluate and score the proposals using the criteria and scoring as follows:

CRITERIA	MAXIMUM SCORE
1) Experience on similar projects	20
2) Personnel experience as related to the project	20
3) Proposer's understanding of the project (approach and methodology)	10
4) Hudson/Veteran Small Entrepreneurship Program	10
5) Price	25
6) Proposer's Oral interview	15
TOTAL SCORE	100

All proposals shall be evaluated as indicated. The proposer's ratings in each criteria shall be added to arrive at the proposer's total score. The Project Evaluation Team shall compile the scores and make a recommendation to the DOTD Secretary based on highest score. The award of a contract is subject to the approval of the Division of Administration, Office of Contractual Review.

6.5.1. Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Participation (Value of 10% of the total evaluation points)

Note: This section should not be used if the funding source being utilized includes restrictions, (i.e. FEMA funds, HUD funds, etc.).

Ten percent (10%) of the total evaluation points on this RFP are reserved for proposers who are themselves a certified Veteran or Hudson Initiative small entrepreneurship or who will engage the participation of one or more certified Veteran or Hudson Initiatives small entrepreneurships as subcontractors.

Reserved points shall be added to the applicable proposers' evaluation score as follows:

Proposer Status and Reserved Points:

- Proposer is a certified small entrepreneurship: Full amount of the reserved points

- Proposer is not a certified small entrepreneurship but has engaged one or more certified small entrepreneurs to participate as subcontractors or distributors. Points will be allocated based on the following criteria:
 - the number of certified small entrepreneurs to be utilized
 - the experience and qualifications of the certified small entrepreneurship(s)
 - the anticipated earnings to accrue to the certified small entrepreneurship(s)

6.6 *Announcement of Contractor*

The DOTD will notify the successful Proposer and proceed to negotiate terms for final contract. Unsuccessful proposers will be notified in writing accordingly.

The proposals received(except for that information appropriately designated as confidential in accordance with R.S. 44.1 et seq), selection memorandum along with list of criteria used along with the weight assigned each criteria; scores of each proposal considered along with overall scores of each proposal considered, and a narrative justifying selection shall be made available, upon request, to all interested parties after the Award has been posted to DOTD Consultant Contract Services website:

<http://webmail.dotd.louisiana.gov/agrestat.nsf/WebAwards?OpenPage>

Any Proposer aggrieved by the proposed award has the right to submit a protest in writing to the head of the agency issuing the proposal within 14 days after the award has been announced by the agency.

The award of a contract is subject to the approval of the Division of Administration, Office of Contractual Review.

7.0 SUCCESSFUL CONTRACTOR REQUIREMENTS

7.1 *Vendor Registration*

DOTD strongly encourages contractors to register on the LaPac website.

<http://wwwprd1.doa.louisiana.gov/OSP/LaPAC/pubMain.cfm>

Click On: *LaGov Vendor Registration*
 Registration Help Desk: (225) 342-6349

It is highly advisable to register a minimum of one if not more of the following product category codes

80101500 For Consulting/Professional Services
 81112000 For any services that include Computer Elements
 43231500 For Software License and Maintenance Agreements
 81102200 For Engineering and Related Services

7.2 Corporation Requirements

Prior to the award of the contract, if the Contractor is a corporation not incorporated under the laws of the State of Louisiana, the Contractor shall have obtained a certificate of authority pursuant to R. S. 12:301-302 from the Secretary of State of Louisiana.

Prior to the award of the contract, if the Contractor is a for-profit corporation whose stock is not publicly traded, the Contractor shall ensure that a disclosure of ownership form has been properly filed with the Secretary of State of Louisiana.

7.3 Compensation

Compensation to the Contractor for the services rendered for this project shall be made at billable rates and other detail costs specified in the Contractor's proposal, payable in installments as specified in Sub-Section 7.4, Billing and Payment.

7.4 Billing and Payment

Payments to the Contractor for services rendered for this Project shall be made monthly based on a certified and itemized invoice showing line item costs incurred. Any labor charges for approved services shall include the names of the employees, their classification, and the actual time worked, not to include time spent on lunch or other breaks. These shall be reimbursed at the approved billable rate for that classification established from the Contractor's Proposal, unless payment adjustments are required as set forth below. These rates shall be used for the duration of the Contract.

Payment shall reflect a fifteen percent retainage of the total sum of each invoice submitted. Retainage shall be held by DOTD until the satisfactory completion of the project. Upon completion of the work, a statistical sampling and analysis of the electronic haul tickets will be performed by DOTD, and payment adjustments will be calculated due to failure to submit accurate and complete haul tickets. The payment adjustment will be included in the release of retainage in accordance with the following schedule:

% Accurate and Complete	% of retainage to be released
Greater than or equal to 98 %	100 %
97.9 % - 95 %	73 %
94.9 % - 92 %	53 %
91.9 % - 90 %	20 %
Less than 90 %	0 %

DOTD will not reimburse Contractor employee for time spent on lunch or other breaks to which the worker(s) may be entitled under Contractors employee/employer relationship contract. Such time shall be excluded from invoices.

Travel shall be reimbursed according with the State Travel Regulations. DOTD will allow adjustments for travel and other detailed costs between Tasks. **Mileage shall be defined as beginning at the first scheduled work site for the day and ending at the last work site for the day. Travel reimbursement shall be limited to 50 miles per staff member per day.**

Exception to this limitation may be applied to Terrebonne, Lafourche, Jefferson and Plaquemines Parishes due to relative distance factors involved. In these parishes the actual mileage may be allowed to exceed 50 miles however, will not be authorized to exceed the state's daily maximum reimbursable travel regulations. Additionally, this exception is contingent upon receipt of documentation of dates of work, employees' names, beginning and ending mileage per day and work location. Approval for this exception must be requested in writing and in advance and approved by the Project Manager and the State Debris Manager."

A detail mileage log will be required for each vehicle. Log should be certified and signed by driver and supervisor.

Any charges for approved services other than labor shall be detailed to include vendor name, cost, and description. Final payment for these costs will be adjusted after project completion, or at the request of the Project Manager, to reflect the actual costs experienced by the Contractor during the course of this contract as determined by DOTD's Audit Section following the post audit of this contract. However, in no event shall such an adjustment allow the contract cost to exceed the maximum limitation imposed thereon. The allowable costs shall be in accordance with the cost principles and procedures set forth in 48 CFR 31 of the (FARS) as appropriate.

The original and two copies of the invoice shall be submitted to the Project Manager. The invoice must be signed and dated by the Contractor.

Upon receipt of each invoice, the DOTD shall pay the amount due for services satisfactorily performed (on the undisputed amounts) within 30 calendar days, in accordance with Louisiana R.S. 48: 251.5.

7.5 Errors and Omissions

It is understood that all work required of the Contractor under Contract shall be accurate and complete and performed to the satisfaction and approval of the DOTD. The DOTD's review, approval, acceptance of, or payment for the services required under this Contract shall not be construed to operate as a waiver of any of the DOTD's rights or of any causes of action arising out of or in connection with the performance of this Contract.

The Contractor shall be responsible for the accuracy and completeness of all services performed under this Contract. If errors or substandard work is revealed during normal work reviews, the work should be returned for correction, and payments withheld until delivery of an acceptable product. The Contractor shall, without additional compensation, correct or revise any deficiencies discovered subsequent to final acceptance by the DOTD. If the DOTD staff makes corrections due to oversight, errors or omissions by the Contractor, the Contractor shall be responsible for costs incurred by the DOTD to make the corrections, as well as any amounts denied by Federal agencies attributable to Contractors failed accuracies and/or errors and omissions.

7.6 Contract Terms & Conditions

The proposer shall be required to enter into a Contract with DOTD that is **basically the same** as Attachment VII (Sample Contract). Any changes to those terms shall be negotiated if state law allows such negotiation.

7.7 Indemnification

The Contractor shall indemnify, save harmless and defend DOTD against any and all claims, losses, liabilities, demands, suits, causes of action, damages, and judgments of sums of money growing out of, resulting from, or by reason of any act or omission of the Contractor, its agents, servants, independent contractors, or employees while engaged in, about, or in connection with the discharge or performance of the terms of this Agreement. Such indemnification shall include attorney's fees and court costs. Contractor shall provide and bear the expense of all personal and professional insurance related to its duties arising under this Agreement.

Contractor shall indemnify, defend and hold DOTD and its Authorized Users harmless, without limitation, from and against any and all damages, expenses (including reasonable attorneys' fees), claims, judgments, liabilities and costs which may be finally assessed against DOTD in any action for infringement of a United States Letter Patent with respect to the Products furnished, or of any copyright, trademark, trade secret or intellectual property right, provided that DOTD shall give the Contractor: (i) prompt written notice of any action, claim or threat of infringement suit, or other suit, (ii) the opportunity to take over, settle or defend such action, claim or suit at Contractor's sole expense, and (iii) assistance in the defense of any such action at the expense of Contractor. Where a dispute or claim arises relative to a real or anticipated infringement, DOTD or its Authorized Users may require Contractor, at its sole expense, to submit such information and documentation, including formal patent attorney opinions, as the Commissioner of Administration shall require.

The Contractor shall not be obligated to indemnify that portion of a claim or dispute based upon: i) Authorized User's unauthorized modification or alteration of a Product; ii) Authorized User's use of the Product in combination with other products not furnished by Contractor; iii) Authorized User's use in other than the specified operating conditions and environment. In addition to the foregoing, if the use of any item(s) or part(s) thereof shall be enjoined for any reason or if Contractor believes that it may be enjoined, Contractor shall have the right, at its own expense and sole discretion as the Authorized User's exclusive remedy to take action in the following order of precedence: (i) to procure for DOTD the right to continue using such item(s) or part (s) thereof, as applicable; (ii) to modify the component so that it becomes non-infringing equipment of at least equal quality and performance; or (iii) to replace said item(s) or part(s) thereof, as applicable, with non-infringing components of at least equal quality and performance, or (iv) if none of the foregoing is commercially reasonable, then provide monetary compensation to DOTD up to the dollar amount of the Contract.

For all other claims against the Contractor where liability is not otherwise set forth in the Contract as being "without limitation", and regardless of the basis on which the claim is made, Contractor's liability for direct damages, shall be the greater of \$100,000, the dollar amount of the Contract, or two (2) times the charges rendered by the Contractor under the Contract. Unless otherwise specifically enumerated herein or in the work order mutually agreed between the parties, neither party shall be liable to the other for special, indirect or consequential damages, including lost data or records (unless the Contractor is required to back-up the data or records as part of the work plan), even if the party has been advised of the possibility of such damages. Neither party shall be liable for lost profits, lost revenue or lost institutional operating savings. DOTD and Authorized User may, in addition to other remedies available to them at law or equity and upon notice to the Contractor, retain such monies from amounts due Contractor, or may

proceed against the performance and payment bond, if any, as may be necessary to satisfy any claim for damages, penalties, costs and the like asserted by or against them.

7.8 Confidentiality

All financial, statistical, personal, technical and other data and information relating to DOTD's operation which are designated confidential by DOTD and made available to the Contractor in order to carry out this contract, or which become available to the Contractor in carrying out this contract, shall be protected by the Contractor from unauthorized use and disclosure through the observance of the same or more effective procedural requirements as are applicable to DOTD. The identification of all such confidential data and information as well as DOTD's procedural requirements for protection of such data and information from unauthorized use and disclosure shall be provided by DOTD in writing to the Contractor. If the methods and procedures employed by the Contractor for the protection of the Contractor's data and information are deemed by DOTD to be adequate for the protection of DOTD's confidential information, such methods and procedures may be used, with the written consent of DOTD, to carry out the intent of this paragraph. The Contractor shall not be required under the provisions of the paragraph to keep confidential any data or information, which is or becomes publicly available, is already rightfully in the Contractor's possession, is independently developed by the Contractor outside the scope of the contract, or is rightfully obtained from third parties.

Under no circumstance shall the Contractor to discuss and/or release information to the media concerning this project without prior express written approval of the DOTD.

ATTACHMENT I – PRICE PROPOSAL (DISTRICT 02)

I/We propose to furnish all labor, materials, equipment, incidentals, etc. necessary to provide the scope of services as outlined in this RFP for the rates of:

Classification	Billable Hourly Rates	Multiply times	Extended total
Contract Monitor/ Roadway		74%	
Contract Monitor/ Disposal Site		13%	
Contract Monitor Supervisor/Coordinator		9%	
Contract Monitor Office Support		3%	
Contract Monitor Project Manager		1%	
Grand Total			

NOTE: Total Cost Summary must include a **Grand Total** for billable rates per classification. The Grand total Price will be the cost used for evaluation purposes described in 6.5.

NOTE: Mileage expenses do not have to be included in the billable hourly rates of the classification. Mileage expense will be in accordance with the most current State’s Travel Regulations as detailed in the Louisiana Travel Guide. (Travel Guide/PPM 49) found at: <http://www.state.la.us/osp/travel/travelOffice.htm>. Mileage shall be defined as beginning at the first scheduled work site for the day and ending at the last work site for the day. Travel reimbursement shall be limited to 50 miles per staff member per day.

Exception to this limitation may be applied to Terrebonne, Lafourche, Jefferson and Plaquemines Parishes due to relative distance factors involved. In these parishes the actual mileage may be allowed to exceed 50 miles however, will not be authorized to exceed the state’s daily maximum reimbursable travel regulations. Additionally, this exception is contingent upon receipt of documentation of dates of work, employees’ names, beginning and ending mileage per day and work location. Approval for this exception must be requested in writing and in advance and approved by the District Debris Manager and the State Debris Manager.”

Name of Firm: _____

Address of Firm: _____

Telephone Number: _____

Signature: _____

Name and Title: _____ Date: _____

ATTACHMENT II
CERTIFICATION STATEMENT

The undersigned hereby acknowledges she/he has read and understands all requirements and specifications of the Request for Proposals (RFP), including attachments.

OFFICIAL CONTACT. DOTD requests that the proposer designate one person to receive all documents and the method in which the documents are best delivered. The Proposer should identify the Contact name and fill in the information below: (Print Clearly):

Date: _____ Official Contact Name: _____

A. E-mail Address: (required) _____

B. Facsimile Number with area code: (____) _____

C. US Mail Address: _____

D. Telephone Number: _____

Proposer certifies that the above information is true and grants permission to DOTD or Agencies to contact the above named person or otherwise verify the information I have provided.

By its submission of this proposal and authorized signature below, Proposer certifies that:

1. The information contained in its response to this RFP is accurate;
2. Proposer complies with each of the mandatory requirements listed in the RFP and will meet or exceed the functional and technical requirements specified therein;
3. Proposer accepts the procedures, evaluation criteria, mandatory contract terms and conditions, and all other administrative requirements set forth in this RFP.
4. Proposer's quote is valid for at least *One Year* from the date of proposal's signature below;
5. Proposer understands that if selected as the successful Proposer, he/she will have ten (10) business days from the date of delivery of final contract in which to complete contract negotiations, if any, and execute the final contract document.
6. Proposer certifies, by signing and submitting a proposal for \$25,000 or more, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. (A list of parties who have been suspended or debarred can be viewed via the internet at <https://www.sam.gov>.)
7. If subcontractors are proposed to be used, the proposer acknowledges total responsibility for the entire contract.

Authorized Signature: _____

Typed or Printed Name: _____

Title: _____

Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

SIGNATURE of Proposer's Authorized Representative / DATE

ATTACHMENT III

Experience and Training

The Contractor **shall** provide persons experienced and trained in construction inspection activities and/or debris removal monitoring.

Note: If substitutions for training requirements are offered for any key personnel, the proposer shall:

- Include a copy of the formal training program that was developed or provided to the key personnel by the proposer, or
- Submit a detailed certified work and training history including reference information indicating sufficient work experience and training.

The **Contract Monitor – Roadway** shall possess the following *Minimum Training Courses:

DOTD Mathematics for Construction Personnel Volume 1
ATSSA Flagger Course
Work Zone Safety and Awareness
Introduction to Hazardous Materials

The **Contract Monitor – Disposal Site** shall possess the following *Minimum Training Courses:

DOTD Mathematics for Construction Personnel Volume 1 and 2
ATSSA Flagger Course
Work Zone Safety and Awareness
Introduction to Hazardous Materials
DOTD Construction Contract Administration

The **Contract Monitor – Supervisory/Coordinator** shall possess the following Minimum Training Courses:

DOTD Mathematics for Construction Personnel Volume 1 and 2
ATSSA Work Zone Supervisor Certification
Work Zone Safety and Awareness
Introduction to Hazardous Materials
Introduction to Site Manager™
DOTD Construction Contract Administration
FHWA ER Program Training
FEMA Operations Training
GOHSEP Program Training
EMI Debris Management Course
First Aid
CPR

The **Contract Monitor – Office Support** shall possess the following Minimum Training Courses:

Introduction to Site Manager™

DOTD Mathematics for Construction Personnel Volume 1 and 2

DOTD Construction Contract Administration

Introduction to Outlook

Introduction to Microsoft Excel

Intermediate Microsoft Excel

Advanced Microsoft Excel

* - The minimum training requirements for **Contract Monitor – Roadway and Contract Monitor – Disposal Site** may be substituted by one of the following:

- Formal training developed and/or provided by the Contractor. The formal training program shall be submitted to the Project Manager/Project Engineer in writing for review and approval within 15 days of execution of Contract.
- On an individual basis, the Contractor may submit to the Project Manager/Project Engineer a detailed, certified work and training history including reference information indicating sufficient work experience and training. The Project Manager/Project Engineer will review and approve contract monitor based on the verifiable information provided.

All Contract Project Managers provided by the Contractor shall possess knowledge of the following DOTD documents and procedures:

Debris Management Plan

Debris Management Standard Operations Procedures

Retainer Debris Removal and Disposal Contract(s)

Contract Administration Manual

Maps with FA/NFA/Control Section Information

Maintenance Traffic Control Manual

FEMA Debris Management Guide

La DOTD Debris Management Plan

All Contract personnel provided by the Contractor shall possess knowledge of the following:

Manual on Uniform Traffic Control Devices

FHWA ER Manual and Guidelines

FEMA Public Assistance Manual and Guidelines

GOHSEP “Red Book”

FEMA “Green Book”

LDEQ Debris Management Plan

The Project Manager/Project Engineer reserves the right to reject any person(s) who do not possess the minimum skills, knowledge, and ability to perform the work to his/her satisfaction.

The Project Manager/Project Engineer reserves the right to dismiss any person(s) for disorderly conduct, failure to follow directions, or for unsatisfactory work.

ATTACHMENT IV
Minimum Classification Requirements
DISTRICT 02

NOTE:

- DOTD will only pay for one monitor per debris pick-up site per day and one monitor per disposal site per day.
- DOTD will only pay for a maximum of one Supervisor/Coordinator per Parish and a maximum of one Project Manager per Contract.

Classification	Maximum Number to be Provided	Minimum Number of Years of Construction Contract Inspection, Monitoring, or Administration Experience	Required DOTD Certification(s)
Contract Monitor - Roadway	District 02- 55	2	None
Contract Monitor – Disposal Site	District 02 - 10	5	None
Contract Monitor – Supervisor/Coordinator	District 02 – 7	10	None
Contract Monitor – Office Support	District 02 – 2	5	None
Contract Monitor Project Manager	District 02 – 1	5	None

ATTACHMENT V **Specified Services**

The Contractor provided personnel will be assigned to a DOTD Project Manager or designee. The Contractor provided personnel will accept work directions, guidance, and instructions from the DOTD Project Engineer or his assigned DOTD representative. The DOTD Project Manager or designee will determine work starting time, work hours, pre-approved overtime, work assignments, and project assignments. The Contractor provided personnel shall conduct his work within these instructions and directions using the most cost effective methods. The Contractor provided personnel shall not be engaged in any other work assignments during the working times assigned by the DOTD Project Manager or designee.

The Contractor provided personnel shall timely and neatly complete all documentation assigned by the DOTD Project Manager or designee. Additionally, at the beginning of the next work day, the Contractor provided personnel shall provide a daily status report of the previous day's work to the DOTD Project Manager or designee detailing all working hours, work tasks and accomplishments, and resource utilization.

All work will be performed in accordance with the DOTD's Standards and Procedures.

Some of the various tasks to be performed by the Contractor provided personnel under this contract are described more specifically as follows:

1. Writing haul tickets for debris removal. Maintain all field records; make daily entries in the project diary to indicate the Contractor's personnel and Contractor's personnel present on the job site, the contractor's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time.
2. Estimating and documenting debris quantities. Determining debris eligibility, types and acceptable disposal methods.
Guidance on debris eligibility, types and disposal methods can be found in these publications.
 - **FEMA Debris Management Guide**
 - **La DOTD Debris Management Plan**
3. Measuring and computing haul truck volumes.
4. Inspect the contractor's operations (daily) to ensure that all work is performed in accordance with the specified plans, specifications, and reimbursement program requirements.
5. Keep clear and concise records of the contractual operations, prepare daily, weekly, monthly quantity summaries and breakdowns as well as daily progress reports in conformance with DOTD requirements.

Each Contractor provided personnel shall be equipped with a reliable and dependable vehicle for use each day in the contract monitoring activities.

The Contractor provided personnel shall be equipped with a cell phone and be available for DOTD business calls at all times while working for DOTD. The Contractor provided personnel

shall provide other contact information as necessary to ensure adequate and timely means of communication.

The Contractor provided inspectors shall be familiar with the area of work and will be able to easily and quickly navigate to and from multiple work locations, DOTD facilities, Contractors' facilities, etc.

The Contractor provided personnel shall be equipped with all necessary Personal Protective Equipment (PPE) needed for the working conditions as required by the DOTD Safety Manual and as approved by DOTD Safety Section. At a minimum, the Contractor provided personnel shall provide: hard hat, reflectorized safety vest, hearing protection, safety glasses. The Contractor provided personnel will need to provide the following as needed: rubber boots, rain suit, insect repellent, gloves, climbing harness with lanyard, and life vest.

As a minimum, the Contractor provided personnel shall be equipped with the following equipment: GPS unit, digital camera, calculator(s), measuring tape(s), clipboards, writing and drawing instruments, and travel maps. The Contractor provided Office Support and Supervisor/Coordinator shall be equipped with a laptop computer with Microsoft Office Suite, wireless capabilities, and remote internet access. Contractor shall provide photographs that include date and GPS coordinates.

Contractor shall provide personnel with a DOTD Identification Badge and two magnetic vehicle decals. The badge shall be worn at all times during working hours and decals shall be displayed on the Contractor provided vehicle at all times while working on DOTD projects.

The Contractor provided personnel will be responsible for obtaining all DOTD forms, manuals, documents, and procedures which are available on the Department's Internet site. DOTD will provide copies or make available all necessary manuals, documents, forms and procedures not available on its Internet site. DOTD may provide office space and field office space as available.

The Contractor will provide their personnel with all necessary food, water, fuel, restroom facilities and lodging facilities needed to provide these services.

The Contractor shall provide daily reports from each monitor.

The Contractor shall provide a daily Summary Report.

ATTACHMENT VI SAMPLE HAUL TICKET

CONTRACT INFORMATION	
Project No./Name	Contractor:
TRUCKING INFORMATION	
Truck No.:	Certified Capacity: CY
Subcontractor:	Driver
LOADING INFORMATION	
Date:	Begin/End Time:
Route/Control Section:	District/Parish:
Pass:	Federal Aid Road: <input type="checkbox"/>
To & From Load Location/Address	
Begin Lat.	End Lat.
Begin Long.	End Long.
Load Monitor Signature: _____	
Print Name and ID No.: _____	
DEBRIS INFORMATION	
<input type="checkbox"/> Vegetative <input type="checkbox"/> C & D/Non-Burnable <input type="checkbox"/> Other _____	<input type="checkbox"/> White Goods/Appliances <input type="checkbox"/> Stump Diameter _____ <input type="checkbox"/> Earthen
DISPOSAL INFORMATION	
Date/Time:	Dumpsite Name & Location:
Load Est (%)	x Max Capacity = CY
Site Monitor Signature: _____	
Print Name and ID No: _____	
Comments:	
Original: DOTD Green: Monitor Yellow: Contractor Pink: Driver Gold: DOTD	

ATTACHMENT VII: SAMPLE CONTRACT

CONSULTING SERVICES CONTRACT

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

RETAINER CONTRACT FOR DEBRIS REMOVAL AND DISPOSAL MONITORING RESOURCES **DISTRICT 02**

PLEASE NOTE: Prior to execution of any contract resulting from RFP, Contractor must be registered as a vendor at:

Registration Link:

<http://wwwprd1.doa.louisiana.gov/OSP/LaPAC/pubMain.cfm>

Click On: *LaGov Vendor Registration*

Registration Help Desk: (225) 342-6349

It is highly advisable to register a minimum of one if not more of the following product category codes

80101500 For Consulting/Professional Services

81112000 For any services that include Computer Elements

43231500 For Software License and Maintenance Agreements

81102200 For Engineering and Related Services

On this _____ day of _____, 20xx, the State of Louisiana through the Louisiana Department of Transportation & Development, hereinafter sometimes referred to as "DOTD", and [Contractor's name and legal address], hereinafter sometimes referred to as "Contractor", do hereby enter into a Contract under the following terms and conditions.

1 SCOPE OF SERVICES

1.1 CONCISE DESCRIPTION OF SERVICES

The Contractor will provide the necessary staffing and equipment resources to supplement DOTD resources in the monitoring of district-wide debris removal and disposal contracts as a result of nature or man-made disaster(s)/event(s). On as needed basis, the Contractor will be given a Task Order to provide necessary staffing and equipment detailed in the Task Order to:

- Assist and support the assigned DOTD Project Manager/Project Engineer(s) in the inspection and monitoring of district-wide Debris Removal and Disposal Contracts on federal aid qualifying and non-federal aid qualifying routes.
- Provide an electronic database to process, store and query all data including photographs, field documents, haul truck certification, etc.

The Contractor will have forty-eight (48) hours from notification date to mobilize resources to provide the services as stated in the Task Order.

The Selected Contractor shall furnish qualified and trained personnel and equipment as specified in detail in Attachment III (Experience and Training) in order to accomplish the specified services in Attachment V (Specified Services).

1.1.1 GOALS AND OBJECTIVES

DOTD has many challenges related to Debris Removal and Disposal Monitoring. These challenges also afford DOTD with many opportunities to improve our services to the public through the utilization of improved practices by our selected Contractors. These improved practices shall include accurate completion of all required documentation which will result in increasing the retainage of Federal reimbursements. Another objective is to eliminate waste by decreasing the amount of unnecessary work by DOTD employees required to correct inaccurate documentation.

The overall goal is to not only select a qualified monitoring Contractor but to select one that will provide the services that will allow DOTD to realize these objectives.

1.1.2 PERFORMANCE MEASURES

The performance of the contract will be measured by the State Project Manager, authorized on behalf of the State, to evaluate the Contractor's performance against the criteria contained in Attachment III of the RFP and a statistical sampling and analysis of electronic haul ticket data for accuracy and completeness as defined in Section 2.4 (Definitions) of the RFP.

1.1.3 MONITORING PLAN

The DOTD's Project Manager and/or designee will monitor the services provided by the contractor and the expenditure of funds under this contract. *[Name and Title or Position]* will be primarily responsible for the day-to-day contact with the contractor and day-to-day monitoring of the contractor's performance.

1.1.4 HUDSON/VETERAN REPORTING REQUIREMENTS

Veteran-Owned and Service-Connected Small Entrepreneurships (Veteran Initiative) and Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) Programs Reporting Requirements

During the term of the contract and at expiration, the Contractor will be required to report Veteran-Owned and Service-Connected Disabled Veteran-Owned and Hudson Initiative small entrepreneurship subcontractor or distributor participation and the dollar amount of each.

1.1.5 SUBSTITUTION OF KEY PERSONNEL

The Contractor's key personnel assigned to this Contract shall not be removed, replaced, or substituted without the written consent of the DOTD. Consent shall not be unreasonably withheld or delayed provided an equally qualified replacement is offered. In the event that any Contractor personnel become unavailable due to resignation, illness, or other factors outside of the Contractor's control, excluding assignment to a project outside of the Contract, the Contractor shall be responsible for providing an equally qualified replacement to avoid delays in completing tasks.

Any such replacement of key personnel must be approved by DOTD.

2 ADMINISTRATIVE REQUIREMENTS

2.1 TERM OF CONTRACT

This Contract shall begin on _____, **20**__ and shall terminate on _____, **20**__, unless modified by a fully executed amendment agreement. Notwithstanding the foregoing, in no event shall this Contract be valid until it has been approved, in writing, by the Director of the Office of Contractual review of the Division of Administration. Such approval authorizes a Contract term for not more than 36 months.

2.2 DOTD FURNISHED RESOURCES

Mr. /Ms. _____ will serve as DOTD Project Manager for this Contract. The DOTD Project Manager shall provide oversight of the activities conducted hereunder. Notwithstanding the Contractor's responsibility for management during the performance of this Contract, the assigned DOTD Project Manager shall be the principal point of contact on behalf of the DOTD and will be the principal point of contact for Contractor concerning Contractor's performance under this Contract.

2.3 TAXES

Contractor hereby agrees that the responsibility for payment of taxes from the funds thus received under this Contract and/or legislative appropriation shall be Contractor's obligation and identified under Federal tax identification number _____.

3 COMPENSATION, MAXIMUM AMOUNT OF CONTRACT, & PAYMENT TERMS

3.1 COMPENSATION

In consideration of the services described above, DOTD hereby agrees to pay the Contractor compensation based on the following billable rates for the actual work performed.

Classification	Billable Hourly Rates
Contract Monitor/ Roadway	
Contract Monitor/ Disposal Site	
Contract Monitor Supervisor/Coordinator	
Contract Monitor Office Support	
Contract Monitor Project Manager	

Travel shall be reimbursed according with the State Travel Regulations. DOTD will allow adjustments for travel and other detailed costs between Tasks. **Mileage shall be defined as**

beginning at the first scheduled work site for the day and ending at the last work site for the day. Travel reimbursement shall be limited to 50 miles per staff member per day.

Exception to this limitation may be applied to Terrebonne, Lafourche, Jefferson and Plaquemines Parishes due to relative distance factors involved. In these parishes the actual mileage may be allowed to exceed 50 miles however, will not be authorized to exceed the state's daily maximum reimbursable travel regulations. Additionally, this exception is contingent upon receipt of documentation of dates of work, employees' names, beginning and ending mileage per day and work location. Approval for this exception must be requested in writing and in advance and approved by the Project Manager and the State Debris Manager."

A detail mileage log will be required for each vehicle. Log should be certified and signed by driver and supervisor.

The maximum number of hours worked by any individual under this contract shall not exceed 84 hours per week.

NOTE: All travel related expenses will be compensated under direct expenses and will be in accordance with Louisiana Office of State Travel regulations (PPM No. 49) found at: <http://www.state.la.us/osp/travel/travelOffice.htm>.

3.2 PAYMENT TERMS

Payments to the Contractor for services rendered for this Project shall be made monthly based on a certified and itemized invoice showing line item costs incurred. Any labor charges for approved services shall include the names of the employees, their classification, and the actual time worked, not to include time spent on lunch or other breaks. These shall be reimbursed at the approved billable rate for that classification established from the Contractor's Proposal, unless payment adjustments are required as set forth below. These rates shall be used for the duration of the Contract.

Payment shall reflect a fifteen percent retainage of the total sum of each invoice submitted. Retainage shall be held by DOTD until the satisfactory completion of the project. Upon completion of the work, a statistical sampling and analysis of the electronic haul tickets will be performed by DOTD, and payment adjustments will be calculated due to failure to submit accurate and complete haul tickets. The payment adjustment will be included in the release of retainage in accordance with the following schedule:

% Accurate and Complete	% of retainage to be released
Greater than or equal to 98 %	100 %
97.9 % - 95 %	73 %
94.9 % - 92 %	53 %
91.9 % - 90 %	20 %
Less than 90 %	0 %

DOTD will not reimburse Contractor employee for time spent on lunch or other breaks to which the worker(s) may be entitled under Contractors employee/employer relationship contract. Such time shall be excluded from invoices.

Travel shall be reimbursed according with the State Travel Regulations. DOTD will allow adjustments for travel and other detailed costs between Tasks. **Mileage shall be defined as beginning at the first scheduled work site for the day and ending at the last work site for the day. Travel reimbursement shall be limited to 50 miles per staff member per day.**

Exception to this limitation may be applied to Terrebonne, Lafourche, Jefferson and Plaquemines Parishes due to relative distance factors involved. In these parishes the actual mileage may be allowed to exceed 50 miles however, will not be authorized to exceed the state's daily maximum reimbursable travel regulations. Additionally, this exception is contingent upon receipt of documentation of dates of work, employees' names, beginning and ending mileage per day and work location. Approval for this exception must be requested in writing and in advance and approved by the District Debris Manager and the State Debris Manager.

A detail mileage log will be required for each vehicle. Log should be certified and signed by driver and supervisor.

Any charges for approved services other than labor shall be detailed to include vendor name, cost, and description. Final payment for these costs will be adjusted after project completion, or at the request of the Project Manager, to reflect the actual costs experienced by the Contractor during the course of this contract as determined by DOTD's Audit Section following the post audit of this contract. However, in no event shall such an adjustment allow the contract cost to exceed the maximum limitation imposed thereon. The allowable costs shall be in accordance with the cost principles and procedures set forth in 48 CFR 31 of the (FARS) as appropriate.

The original and two copies of the invoice shall be submitted to the Project Manager. The invoice must be signed and dated by the Contractor.

Upon receipt of each invoice, the DOTD shall pay the amount due for services satisfactorily performed (on the undisputed amounts) within 30 calendar days, in accordance with Louisiana R.S. 48: 251.5.”

3.3 ERRORS AND OMISSIONS

It is understood that all work required of the Contractor under Contract shall be accurate and complete and performed to the satisfaction and approval of the DOTD. The DOTD's review, approval, acceptance of, or payment for the services required under this Contract shall not be construed to operate as a waiver of any of the DOTD's rights or of any causes of action arising out of or in connection with the performance of this Contract.

The Contractor shall be responsible for the accuracy and completeness of all services performed under this Contract. If errors or substandard work is revealed during normal work reviews, the work should be returned for correction, and payments withheld until delivery of an acceptable product. The Contractor shall, without additional compensation, correct or revise any deficiencies discovered subsequent to final acceptance by the DOTD. If the DOTD staff makes

corrections due to oversight, errors or omissions by the Contractor, the Contractor shall be responsible for costs incurred by the DOTD to make the corrections, as well as any amounts denied by Federal agencies attributable to Contractors failed accuracies and/or errors and omissions.

4 TERMINATION

4.1 TERMINATION FOR CAUSE

DOTD may terminate this Contract for cause based upon the failure of Contractor to comply with the terms and/or conditions of the Contract; provided that the DOTD shall give the Contractor written notice specifying the Contractor's failure. If within thirty (30) days after receipt of such notice, the Contractor shall not have either corrected such failure or, in the case of failure which cannot be corrected in thirty (30) days, begun in good faith to correct said failure and thereafter proceeded diligently to complete such correction, then the DOTD may, at its option, place the Contractor in default and the Contract shall terminate on the date specified in such notice. Failure to perform within the time agreed upon in the contract may constitute default and may cause cancellation of the contract.

Contractor may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the DOTD to comply with the terms and conditions of this contract provided that the Contractor shall give the DOTD written notice specifying the DOTD agency's failure and a reasonable opportunity for the state to cure the defect.

4.2 TERMINATION FOR CONVENIENCE

DOTD may terminate the Contract at any time without penalty by giving thirty (30) days written notice to the Contractor of such termination or negotiating with the Contractor an effective date. Contractor shall be entitled to payment for deliverables in progress; to the extent work has been performed satisfactorily.

4.3 TERMINATION FOR NON-APPROPRIATION OF FUNDS

The continuation of this contract is contingent upon the appropriation of funds by the legislature to fulfill the requirements of the contract by the legislature. If the legislature fails to appropriate sufficient monies to provide for the continuation of the contract, or if such appropriation is reduced by the veto of the Governor or by any means provided in the appropriations act of Title 39 of the Louisiana Revised Statutes of 1950 to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds have not been appropriated.

5 INDEMNIFICATION & LIMITATION OF LIABILITY

The Contractor shall indemnify, save harmless and defend DOTD against any and all claims, losses, liabilities, demands, suits, causes of action, damages, and judgments of sums of money growing out of, resulting from, or by reason of any act or omission of the Contractor, its agents,

servants, independent contractors, or employees while engaged in, about, or in connection with the discharge or performance of the terms of this Agreement. Such indemnification shall include attorney's fees and court costs. Contractor shall provide and bear the expense of all personal and professional insurance related to its duties arising under this Agreement.

Contractor shall indemnify, defend and hold DOTD and its Authorized Users harmless, without limitation, from and against any and all damages, expenses (including reasonable attorneys' fees), claims, judgments, liabilities and costs which may be finally assessed against DOTD in any action for infringement of a United States Letter Patent with respect to the Products furnished, or of any copyright, trademark, trade secret or intellectual property right, provided that DOTD shall give the Contractor: (i) prompt written notice of any action, claim or threat of infringement suit, or other suit, (ii) the opportunity to take over, settle or defend such action, claim or suit at Contractor's sole expense, and (iii) assistance in the defense of any such action at the expense of Contractor. Where a dispute or claim arises relative to a real or anticipated infringement, DOTD or its Authorized Users may require Contractor, at its sole expense, to submit such information and documentation, including formal patent attorney opinions, as the Commissioner of Administration shall require.

The Contractor shall not be obligated to indemnify that portion of a claim or dispute based upon: i) Authorized User's unauthorized modification or alteration of a Product; ii) Authorized User's use of the Product in combination with other products not furnished by Contractor; iii) Authorized User's use in other than the specified operating conditions and environment.

In addition to the foregoing, if the use of any item(s) or part(s) thereof shall be enjoined for any reason or if Contractor believes that it may be enjoined, Contractor shall have the right, at its own expense and sole discretion as the Authorized User's exclusive remedy to take action in the following order of precedence: (i) to procure for DOTD the right to continue using such item(s) or part (s) thereof, as applicable; (ii) to modify the component so that it becomes non-infringing equipment of at least equal quality and performance; or (iii) to replace said item(s) or part(s) thereof, as applicable, with non-infringing components of at least equal quality and performance, or (iv) if none of the foregoing is commercially reasonable, then provide monetary compensation to DOTD up to the dollar amount of the Contract.

For all other claims against the Contractor where liability is not otherwise set forth in the Contract as being "without limitation", and regardless of the basis on which the claim is made, Contractor's liability for direct damages, shall be the greater of \$100,000, the dollar amount of the Contract, or two (2) times the charges rendered by the Contractor under the Contract. Unless otherwise specifically enumerated herein or in the work order mutually agreed between the parties, neither party shall be liable to the other for special, indirect or consequential damages, including lost data or records (unless the Contractor is required to back-up the data or records as part of the work plan), even if the party has been advised of the possibility of such damages. Neither party shall be liable for lost profits, lost revenue or lost institutional operating savings. DOTD and Authorized User may, in addition to other remedies available to them at law or equity and upon notice to the Contractor, retain such monies from amounts due Contractor, or may proceed against the performance and payment bond, if any, as may be necessary to satisfy any claim for damages, penalties, costs and the like asserted by or against them.

6 CONTRACT CONTROVERSIES

Any claim or controversy arising out of the contract shall be resolved by the provisions of Louisiana Revised Statutes 39:1524-26.

7 FUND USE

Contractor agrees not to use Contract proceeds to urge any elector to vote for or against any candidate or proposition on an election ballot nor shall such funds be used to lobby for or against any proposition or matter having the effect of law being considered by the Louisiana Legislature or any local governing authority. This provision shall not prevent the normal dissemination of factual information relative to a proposition on any election ballot or a proposition or matter having the effect of law being considered by the Louisiana Legislature or any local governing authority.

8 OWNERSHIP

All records, reports, documents and other material delivered or transmitted to Contractor by DOTD shall remain the property of DOTD, and shall be returned by Contractor to DOTD, at Contractor's expense, at termination or expiration of this contract. All records, reports, documents, or other material related to this contract and/or obtained or prepared by Contractor in connection with the performance of the services contracted for herein shall become the property of DOTD, and shall, upon request, be returned by Contractor to DOTD, at Contractor's expense, at termination or expiration of this contract.

9 NON-ASSIGNABILITY

No Contractor shall assign any interest in this Contract by assignment, transfer, or novation, without prior written consent of the DOTD. This provision shall not be construed to prohibit the Contractor from assigning to a bank, trust company, or other financial institution any money due or to become due from approved Contracts without such prior written consent. Notice of any such assignment or transfer shall be furnished promptly to the DOTD.

10 RIGHT TO AUDIT

The DOTD Auditor, State Legislative auditor, federal auditors and internal auditors of the Division of Administration, or others so designated by the DOA, shall have the option to audit all accounts directly pertaining to the Contract for a period of three (3) years from the date of the last payment made under this Contract. Records shall be made available during normal working hours for this purpose.

11 CONTRACT MODIFICATION

No amendment or variation of the terms of this Contract shall be valid unless made in writing, signed by the parties and approved as required by law. No oral understanding or agreement not incorporated in the Contract is binding on any of the parties.

12 CONFIDENTIALITY OF DATA

All financial, statistical, personal, technical and other data and information relating to the

DOTD's operation which are designated confidential by the DOTD and made available to the Contractor in order to carry out this Contract, or which become available to the Contractor in carrying out this Contract, shall be protected by the Contractor from unauthorized use and disclosure through the observance of the same or more effective procedural requirements as are applicable to the DOTD. The identification of all such confidential data and information as well as the DOTD's procedural requirements for protection of such data and information from unauthorized use and disclosure shall be provided by the DOTD in writing to the Contractor. If the methods and procedures employed by the Contractor for the protection of the Contractor's data and information are deemed by the DOTD to be adequate for the protection of the DOTD's confidential information, such methods and procedures may be used, with the written consent of the DOTD, to carry out the intent of this paragraph. The Contractor shall not be required under the provisions of the paragraph to keep confidential any data or information which is or becomes publicly available, is already rightfully in the Contractor's possession, is independently developed by the Contractor outside the scope of the Contract, or is rightfully obtained from third parties.

13 COST RECORDS

The Contractor and its sub-Contractors shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred relative to this project. Costs shall be accordance with 48 CFR 31 of the (FARS), as modified by DOTD audit guidelines, and which are incorporated herein by reference as if copied in extensor. The FARS is available for inspection through www.transportation.org. Records shall be retained until such as an audit is made by DOTD or the Contractor is released in writing by the DOTD Audit Director, at which time the Contractor may dispose of such records. The Contractor shall, however, retain such records for a minimum of five years from the date of payment of the last estimate under this Contract or the release of all retainage for this Contract, whichever occurs later, for inspection by DOTD and/or Legislative Auditor and the FHWA or General Accounting (GAO) under State and Federal Regulations effective as of the date of this Contract.

14 SUBCONTRACTORS

The Contractor may, with prior written permission from the DOTD, enter into subcontracts with third parties for the performance of any part of the Contractors duties and obligations. In no event shall the existence of a subcontract operate to release or reduce the liability of the Contractor to the DOTD for any breach in the performance of the Contractor's duties. The Contractor will be the single point of contact for all subcontractor work.

15 COMPLIANCE WITH CIVIL RIGHTS LAWS

The Contractor agrees to abide by the requirements of the following as applicable: Titles VI and VII of the Civil Rights Act of 1964, as amended; the Equal Employment Opportunity Act of 1972, as amended; Federal Executive Order 11246, as amended; Section 504 of the Rehabilitation Act of 1973, as amended; the Vietnam Era Veteran's Readjustment Assistance Act of 1974, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975; the Americans with Disabilities Act of 1990, as amended; and Title II of the Genetic Information Nondiscrimination Act of 2008.

The Contractor agrees not to discriminate in its employment practices, and shall render services under this Contract without regard to race, color, age religion, sex, national origin, veteran status, genetic information, political affiliation or disabilities.

Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable shall be grounds for termination of this Agreement.

16 INSURANCE

Insurance shall be placed with insurers with an A.M. Best's rating of no less than A-VI.

This rating requirement shall be waived for Worker's Compensation coverage only.

Contractor's Insurance: The Contractor shall not commence work under this Contract until he has obtained all insurance required herein. Certificates of Insurance, fully executed by officers of the Insurance Company written or countersigned by an authorized Louisiana state agency, shall be filed with the State of Louisiana for approval. The Contractor shall not allow any Sub-Contractor to commence work on his subcontract until all similar insurance required for the Sub-Contractor has been obtained and approved. If so requested, the Contractor shall also submit copies of insurance policies for inspection and approval of the State of Louisiana before work is commenced. Said policies shall not hereafter be canceled, permitted to expire, or be changed without thirty (30) days notice in advance to the State of Louisiana and consented to by the State of Louisiana in writing and the policies shall so provide.

Compensation Insurance: Before any work is commenced, the Contractor shall maintain during the life of the Contract, Workers' Compensation Insurance for all of the Contractor's employees employed at the site of the project. In case any work is sublet, the Contractor shall require the Sub-Contractor similarly to provide Workers' Compensation Insurance for all the latter's employees, unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in work under the Contract at the site of the project is not protected under the Workers' Compensation Statute, the Contractor shall provide for any such employees, and shall further provide or cause any and all Sub-Contractors to provide Employer's Liability Insurance for the protection of such employees not protected by the Workers' Compensation Statute.

Commercial General Liability Insurance: The Contractor shall maintain during the life of the Contract such Commercial General Liability Insurance which shall protect him, the DOTD, and any Sub-Contractor during the performance of work covered by the Contract from claims or damages for personal injury, including accidental death, as well as for claims for property damages, which may arise from operations under the Contract, whether such operations be by himself or by a Sub-Contractor, or by anyone directly or indirectly employed by either or them, or in such a manner as to impose liability to the DOTD. Such insurance shall name the DOTD as additional insured for claims arising from or as the result of the operations of the Contractor or his Sub-Contractors. In the absence of specific regulations, the amount of coverage shall be as follows: Commercial General Liability Insurance, including bodily injury, property damage and contractual liability, with combined single limits of \$1,000,000.

Insurance Covering Special Hazards: Special hazards as determined by the DOTD shall be covered by rider or riders in the Commercial General Liability Insurance Policy or policies

herein elsewhere required to be furnished by the Contractor, or by separate policies of insurance in the amounts as defined in any Special Conditions of the Contract included therewith.

Licensed and Non-Licensed Motor Vehicles: The Contractor shall maintain during the life of the Contract, Automobile Liability Insurance in an amount not less than combined single limits of \$1,000,000 per occurrence for bodily injury/property damage. Such insurance shall cover the use of any non-licensed motor vehicles engaged in operations within the terms of the Contract on the site of the work to be performed there under, unless such coverage is included in insurance elsewhere specified.

Sub-Contractor's Insurance: The Contractor shall require that any and all Sub-Contractors, which are not protected under the Contractor's own insurance policies, take and maintain insurance of the same nature and in the same amounts as required of the Contractor.

17 APPLICABLE LAW

This Contract shall be governed by and interpreted in accordance with the laws of the State of Louisiana. Venue of any action brought with regard to this Contract shall be in the Nineteenth Judicial District Court, parish of East Baton Rouge, State of Louisiana.

18 CODE OF ETHICS

The Contractor acknowledges that Chapter 15 of Title 42 of the Louisiana Revised Statutes (R.S. 42:1101 et. seq., Code of Governmental Ethics) applies to the Contracting Party in the performance of services called for in this Contract. The Contractor agrees to immediately notify the DOTD if potential violations of the Code of Governmental Ethics arise at any time during the term of this Contract.

19 SEVERABILITY

If any term, covenant, condition, or provision of this Contract or the application thereof to any person or circumstance shall, at any time or to any extent, be invalid or unenforceable, the remainder of this Contract or the application of such term, covenant, condition or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term, covenant, condition, and provision of this Contract shall be valid and enforced to the fullest extent permitted by law.

20 COMPLETE CONTRACT

This is the complete Contract between the parties with respect to the subject matter and all prior discussions and negotiations are merged into this contract. This Contract is entered into with neither party relying on any statement or representation made by the other party not embodied in this Contract and there are no other agreements or understanding changing or modifying the terms. This Contract shall become effective upon final statutory approval.

21 ENTIRE AGREEMENT & ORDER OF PRECEDENCE

This contract together with the RFP and addenda issued and Contractor's proposal which are incorporated herein; shall, to the extent possible, be construed to give effect to all of its provisions; however, where provisions are in conflict, first priority shall be given to the

provisions of the contract, excluding the Request for Proposals, its amendments and the Proposal; second priority shall be given to the provisions of the Request for Proposals and its amendments; and third priority shall be given to the provisions of the Contractor's Proposal.

IN WITNESS THEREOF, the parties have caused these presents to be executed by their respective officers thereunto duly authorized as of the day and year first above written.

WITNESSES:

CONTRACTOR

Witness for First Party

BY: _____

Witness for First Party

Typed or Printed Name

Federal Identification Number

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION
AND DEVELOPMENT

Witness for Second Party

BY: _____
Secretary

Witness for Second Party

RECOMMENDED FOR APPROVAL:

BY: _____
Division Head

TABLE G.5. Example 5 - IDIQ Contract Language

California Department of Transportation

If this Bid Package is downloaded via the Internet, you will need to submit your signed bid documents in a sealed envelope with the following information on the envelope as provided in the sample below:

YOUR RETURN
ADDRESS

Agreement No. 06A1964

Bid Due Date: May 8, 2014

Postage

Department of Transportation
Division of Procurement and Contracts
ATTN: Bid Unit
1727 30th Street, 4th Floor, MS 65
Sacramento, CA 95816-7006

BID SUBMITTAL DO NOT OPEN

DEPARTMENT OF TRANSPORTATION

ADMINISTRATION

DIVISION OF PROCUREMENT AND CONTRACTS MS-67

1727 30th STREET

SACRAMENTO, CA 95816-7006

PHONE (916) 227-0774 or 6000

FAX (916) 227-6155

TTY 711

INTERNET <http://caltrans-opac.ca.gov>Flex your power!
Be energy efficient

April 15, 2014

INVITATION FOR BID (IFB)
IFB # 06A1964
Notice to Prospective Contractors

You are invited to review and respond to this IFB #06A1964, entitled, Identify and Remove Underground Hazardous Material/Waste and Tanks. In submitting your bid, you shall comply with the instructions found herein. In addition to those programs and preferences that are specified in this solicitation, Prospective Contractors are encouraged to consider programs and preferences that are available, such as those for the use of small businesses, disadvantaged businesses, disabled veteran businesses, and other businesses covered by State and Federal programs and preferences.

Disadvantaged Business Enterprise (DBE) participation applies to this IFB. The Caltrans DBE overall goal is **12.5 percent** (12.5%), of which the DBE (DBE) goal is not less than **Twenty-one percent** (21%). See Section D, Item 3, in this IFB for requirements.

Note that all contracts entered into with Caltrans will include, by reference, General Terms and Conditions (GTC) and Contractor Certification Clauses (CCC) that may be viewed and downloaded at Internet site <http://www.ols.dgs.ca.gov/Standard+Language>.

This contract requires Prevailing Wages. Refer to Attachment 11, Proposed form of Agreement for requirement details.

The designated contact person for this IFB is:

Adrienne Taylor
Department of Transportation
916-227-6127
adrienne.taylor@dot.ca.gov

Please note that no *verbal* information given will be binding upon Caltrans unless such information is issued in writing as an official addendum.

*Technical questions regarding this solicitation will be addressed, in writing, and in accordance with the Questions and Answers portion of this IFB. See **Section C** Item 1, **Time Schedule** for more details.

Sincerely,

Adrienne Taylor
Acquisition Analyst

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A) Purpose and Description of Services

- 1) The bidder agrees to provide the California Department of Transportation (Caltrans) with immediate hazardous material/waste, underground tank, container, and drum removal, discovered during Caltrans construction projects.
- 2) The bidder shall furnish all tools, materials and equipment necessary to provide emergency and routine removal of underground tanks and hazardous material discovered within the limits of the Caltrans highway right of way during highway project construction.
- 3) This multi-provider Agreement authorizes award of the contract up to six qualified bidders. Services shall be provided on an on-call and as-needed basis as requested by the Caltrans Contract Manager or his/her designee within the specified geographic regions (Section B).

Refer to the **Proposed Form of Agreement, Exhibit A**, which is attached to this IFB as **Attachment 11** for a more complete description of services.

B) Geographic Regions

District 5 includes the following counties:

Monterey
San Benito
San Luis Obispo
Santa Barbara
Santa Cruz

District 6 includes the following counties:

Madera
Fresno
Tulare
Kings
Kern

District 8 includes the following counties:

Riverside
San Bernardino

District 9 includes the following counties:

Mono
Inyo

District 10 includes the following counties:

Amador
San Joaquin
Stanislaus
Merced
Mariposa

Tuolumne
Calaveras
Alpine

C) Bid Minimum Qualifications

1. The bidder must possess a “Class A” General Engineering Contractor license and Hazardous Substances Removal and Remedial Actions Hazardous Certifications issued by the California Contractors State License Board (CSLB).
2. In addition, either the bidder or its subcontractors must hold the following additional licenses to meet the minimum requirements:
 - a. Proper license to perform Traffic Control services for this Agreement with one of the following licenses either C31 – Construction Zone Traffic Control Contractor or C32 – Parking and Highway Improvement Contractor to perform traffic control services.
 - b. C-57 (well Drilling) Contractor’s License
 - c. Registered Asbestos Contractor per Section 6505.1 of the Labor Code
 - d. Certified Asbestos Contractor per Section 7058.5 of the Business and Professions Code.
 - e. Hazardous Waste Transporters Registered by DTSC per Title 22 Section 66263.11
 - f. Transport Vehicles Certification per Title 22 Section 66263.14
 - g. The bidder shall attach current copies of all licenses held by the firm or its employees plus those of its proposed subcontractors for hazardous waste removal work, underground tank, container or drum removals and sampling/investigative work. If the bidder or any subcontractor holds permits for treatment units in accordance with Title 22 Section 67450.1 et. Seq., these should also be included.
 - h. The bidder shall identify the contract tasks to be performed by its forces, either by bid item or category of work.

Note: Contractors who provide oversight or observation services for hazardous materials management over Caltrans’ constructions projects in the geographic areas covered by this Agreement shall not bid on this Agreement.

D) Format for Providing Bidder Requirement Information

1. Title Page

Include a title page that references this IFB by number and provides the bidder’s name, address, telephone number, after-hours emergency telephone number and fax telephone number. The bidder shall complete the Title Page in Attachment 8.
2. Signed Bid Proposal, (Bid Item Price Schedule)
3. Bidder’s Qualification Package
4. The Bidder shall complete and return as part of the bid, the Contractor’s Qualification Package. There are four parts to the Qualification Package. Refer to Attachment 8:
 - a. Documentation of Past Contract Experience. Refer to Attachment 8

- b. Documentation of Current Contractor Capabilities. Refer to Attachment 8
 - c. List of Proposed Subcontractors. Refer to ADM 1511 Attachment 3
 - d. Subcontractor Qualifications Statement. Refer to Attachment 8
5. This package is the Bidder's only opportunity to demonstrate that its firm meets the minimum qualifications for contract award. A bid is responsive only if all items are completed and the bidder meets all requirements listed in this Section, Bidder Qualification Package.
6. The Bidder's shall provide documentation of its current capability for accomplishing the work of this Contract on the forms provided in Attachment 8. The following are minimum requirements:

7. **Part 1: Documentation of Past Contract Experience/References**

- A. The Bidder shall document that it has successfully completed a minimum of five contracts within the last three years for work that included identifying, investigating and removing hazardous waste under emergency circumstances and that covered all aspects of work required under this IFB. These contracts shall have been for work that required the Contractor to:
- 1. Provide "quick response services", i.e., the Contractor must have arrived at the site within twenty-four hours and subsequently rendered assistance that included at a minimum, successfully providing and implementing a health and safety plan, securing the contaminated site, identifying the contaminants, determining the extent of contamination, and providing and implementing a waste removal plan.
 - 2. Comply with all local, State, and Federal hazardous material laws, regulations, and any applicable site specific, locally required permits.
 - 3. Use certified registered, licensed and permitted equipment, facilities, and subcontractors.
 - 4. Prepare complete, clear and concise reports that fully document field and laboratory activities.
 - 5. Utilize staff personnel who are licensed or certified by the State of California to practice in their respective specialties and trained and equipped to safely handle contaminated material and hazardous wastes.
 - 6. Hire/retain field personnel who are certified by the Contractor as having received the forty hours or more of safety training as required by California Occupational Safety and Health Regulations (CAL/OSHA) for this type of work.

8. **Part 2: Documentation of Current Contractor Capabilities**

The following are minimum requirements:

- A. The Bidder shall employ a minimum of ten professional and technical personnel. The Contractor shall employ a minimum of two registered professionals, one of whom must be a registered geologist in the State of California. These positions shall not be subcontracted. The Contractor shall not use a Registered Environmental Assessors (REA) to meet the registered professional requirement. The Contractor shall identify

the key personnel to be used on the contract. Key personnel shall include the Contractor Project Manager who has overall responsibility for all work done under the contract and Contractor Task Order Managers who are registered professionals and manage individual Task Orders. The resumes of all professional/technical staff that will be used under the contract shall be included with the bid.

- B. The Contractor shall have access to laboratory facilities that have been certified pursuant to Section 25198 of the Health and Safety Code to conduct analytical testing of wastes.
- C. The Contractor shall use appropriately licensed and certified equipment and appropriately licensed and registered subcontractors. The minimum required licenses and certification requirements that the Contractor must hold are:
- D. Contractor's Class "A" (General Engineering) and "Haz" (Hazardous Substances Removal and Remedial Actions) Certificate.

9. Part 3: List of Proposed Subcontractors

- A. The Bidder shall list all proposed subcontractors on Attachment 9, Subcontracting Provisions/List ADM 1511, with a Headquarters address, name of contact person, phone number and area of expertise.
- B. Subcontractors shall comply with the provisions of the Agreement.

10. Part 4: Subcontractor Qualifications Statement

- A. The Bidder shall have each proposed subcontractor complete a Subcontractor Qualification Statement on the form provided. The Contractor shall include a qualification statement for each proposed subcontractor as part of the Contractor Qualification Package.
- B. In order to be accepted by Caltrans as a qualified subcontractor, the subcontractor shall have successfully provided the same hazardous waste services as described in this IFB for a minimum of five Agreements within the last three years. The bidder shall also identify Contract tasks to be performed by each subcontractor bid item number or work category, and identify key personnel, and their licenses and certifications.
- C. The Bidder shall return four complete Bid Packages.

11. Equipment List

- A. To demonstrate an emergency response capability, bidders must be able to show that their firm can provide the equipment used for work under this contract. Bidders are to provide a list of the field equipment and field personnel protective equipment the firm has available for identifying, investigating, treating and removing hazardous waste. List the equipment that the firm owns and the equipment that is readily available through subcontractors or rentals.
- B. Typical examples of equipment include, but are not limited to, the following:

1. Emergency Response Van
2. Black Iron Vacuum Trucks
3. Stainless Steel Vacuum Trucks
4. PVC Lined Vacuum Trucks
5. Rolloff & Sludge Boxes
6. Backhoes
7. Loaders
8. Forklifts
9. Bobcat type Loaders
10. Flatbed Trucks
11. Dump Trucks
12. Haul Trucks – Hazardous Waste Certified
13. Miscellaneous Hand Equipment and Tools
14. Field Investigation Equipment
15. Explosivity Meter
16. Field Monitoring Devices
17. Organic Vapor Meter
18. Photo Ionization Detector
19. Oxygen Meter
20. Health and Safety Equipment
21. Personal Protective Equipment
22. Draeger Pumps

- C. By submitting its bid, Bidder certifies, under penalty of perjury, that its California State License Board (CSLB) license is in a classification appropriate to the work to be undertaken as identified in the Proposed Form of Agreement, Exhibit A, Scope of Work, Attachment 11. This requirement has also been added in the Proposed Form of Agreement, Exhibit E, Attachment 11. Refer to Section D, Bid Requirements and Information, Paragraph 8, Contractor License, for submittal requirements

E) Bid Requirements and Information

1. Time Schedule

It is recognized that time is of the essence. All bidders are hereby advised of the following schedule and will be expected to adhere to the required dates and times.

EVENT	DATE	TIME (Pacific Time)
IFB available to prospective bidders	04/15/14	
Written Question Submittal	04/23/14	
Final Date and Time for Bid Submission	05/08/2014	2:15 PM
Bid Opening	05/08/2014	3:00 PM

2. Questions and Answers

- A. Questions regarding this IFB must be submitted in writing. Bidders are encouraged to submit their written questions via Bid Sync by (Date).
- B. Written questions must include: the individual's name, firm name, complete address and must reference IFB No. 06A1964. Questions must be sent to the following

MAIL OR E-MAIL TO:

Department of Transportation
Division of Procurement and Contracts
Attention: Adrienne Taylor
1727 - 30th Street, MS-65
Sacramento, CA 95816

adrienne.taylor@ot.ca.gov

- C. Written responses to all questions will be collectively compiled and posted, as an Addendum, to the BidSync website (see below). It is the responsibility of the Bidder to access the website for any changes or addenda that may be posted. Refer to this **IFB, Section C 1, Time Schedule**, for the schedule of events and dates/times. It is the responsibility of the bidder to check BidSync for all addenda. Bidder can contact the Acquisition Analyst named above:

<http://www.bidsync.com/>

3. Costs Included in Bid Rates

Bid prices/rates shall include the cost of employer payments to or on behalf of employees, subsistence, travel, compensation insurance premiums, unemployment contributions, social security taxes, contract bond premiums, and any other taxes or assessments, **including but not limited to, sales and use taxes** required by law or otherwise and no additional allowance will be paid unless separate payment provisions in the Agreement should specifically provide otherwise.

4. Employment of Undocumented Workers

No state agency or department, as defined in California Public Contract Code (PCC) section 10335.7, that is subject to this code, shall award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a Public Works Agreement, who has, in the preceding five years, been convicted of violating a State or Federal law regarding the employment of undocumented workers (PCC section 6101).

5. State General Prevailing Wage Rates

State General Prevailing Wage Rates will apply for the Counties of Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Madera, Fresno, Tulare, Kings, Kern, Riverside, San Bernardino, Mono, Inyo, Amador, San Joaquin, Stanislaus, Merced, Mariposa, Tuolumne, Calaveras and Alpine as described in the attached Proposed Form of Agreement (Attachment 11). The predetermined general prevailing wage rates published by the Director of Industrial Relations may be obtained via the Internet: <http://www.dir.ca.gov> or from the District or Region Labor Compliance Officer (in the Proposed Form of Agreement, Attachment 11). It is the bidder's responsibility to use the correct classification determination published by the Department of Industrial Relations.

6. Federal Prevailing Wages

Federal Prevailing Wages apply to this Agreement and can be viewed at <http://www.wdol.gov/dba.aspx#3>.

7. Motor Carrier Permit

- A. Each bidder must provide evidence with its bid that it possesses and maintains in good standing a Motor Carrier Permit (MCP) issued by the California Department of Motor Vehicles (DMV). Caltrans will verify that the bidder has met this requirement prior to Agreement award and may check periodically throughout the term of the Agreement to ensure that the bidder's MCP is in effect and in good standing. Failure to meet this requirement will result, as applicable, in rejection of that Contractor's bid or termination of the Agreement for default under the Termination provision in Ex. D of the Agreement.
- B. The law mandates that a Motor Carrier of Property under Cal. Vehicle Code section 34620 who provides services under this Agreement must have the required Motor Carrier Permit(s) (MCP) issued by the Department of Motor Vehicles.
- C. For more information, the bidder may call its local DMV permit office or the Sacramento DMV Motor Carrier Services Branch at (916) 657-8153. Prior to obtaining a Motor Carrier Permit, the bidder must have a California "CA Number" issued by the California Highway Patrol (CHP). To request a CA Number, the bidder may call its local CHP office or the Sacramento CHP Commercial Records Unit at (916) 375-2810. DMV: (<http://dmv.ca.gov/vehindustry/mcp/mcpinfo.htm>)

8. Contractor License

Bidder must have, at time of bid submittal and for the duration of the contract, a valid, current Class A General Engineering license and a Hazardous Substances Removal and Remedial Actions Hazardous Certifications issued by the California Contractors State License Board (CSLB) C-57 (well drilling) Contractor's License, Registered Asbestos Contractor per Section 6505.1 of the Labor Code, Certified Asbestos Contractor per Section 7058.5 of the Business and Professions Code, Hazardous Waste Transporters Registered by the Department of Toxic Substances Control per Title 22 CCR Section 66263.11, Transport Vehicles Certified per Title 22 Section 66263.14. The Bidder shall attach current copies of all licenses held by the firm or its employees plus those of its proposed subcontractors for hazardous waste removal work, underground tank, container or drum removals and sampling/investigative work. If the Contractor or any

subcontractor holds permits for treatment units in accordance with Title 22 CCR Section 67450.1 must be included. The Bidder shall identify the contract tasks to be performed by its forces, either by bid item or category of work for the type of work to be performed. Bidder shall obtain, pay for and maintain, in good standing, all necessary licenses and permits to accomplish the work. Bidder shall obtain, pay for and maintain, in good standing, all necessary licenses and permits to accomplish the work. Bidders will be considered non-responsive unless proper licensing requirements are met. An invalid license will result in cancellation of the award. Positive verification of a valid license issued by the CSLB will be performed by Caltrans (reference PCC section 10164).

9. Subcontractors

Bidder may subcontract portions of the work as defined in the attached Proposed Form of Agreement. If a subcontractor(s) is/are used, complete the Subcontractor Provision/List form ADM-1511 (Attachment 2). Bidder must ensure that the subcontractor(s) will have all necessary licenses, permits, and/or certifications to accomplish its portion of the work. Failure of a subcontractor(s) to have the proper licenses, permits, and/or certifications, shall be cause for rejection of bid.

10. Non-Collusion Affidavit for Public Works

Bidder must submit, as described herein, a notarized Non-Collusion Affidavit for Public Works. The Non-Collusion Affidavit is attached to this IFB as attachment 4. Failure to submit a complete notarized affidavit shall be rejection of bid.

11. Bonds

- A. Bid Bond Required: Bidder shall submit a *bid bond (executed by an admitted surety insurer) with bid as described herein. The bidder's bid bond shall be no less than ten percent (10%) of bidder's total bid, must be notarized and include the embossed surety seal and must include a Power of Attorney if the signee is not an officer of the surety. Submittal of a bid bond that is not in the appropriate amount, signed and stamped with the surety seal, or failure to submit a bid bond shall be cause for rejection of bid. *The bidder may also submit, in lieu of a bidder's bond, one of the following forms of bidder's security: cash, cashier's check, or certified check made payable to Caltrans.
- B. Payment Bond Requirement: The successful bidder will be required to provide, prior to commencement of work under a Task Order, a Payment Bond for 100 percent (100%) of the Task Order, if the Task Order is over \$25,000. The Payment Bond is not required at the time of bid submittal; however, it is required, as applicable, prior to the start date of the Task Order. Refer to Bonds in Exhibit D of the Proposed Form of Agreement (Attachment 11).

12. Insurance

- A. The bidder, who receives the Agreement award, must provide a Certificate of Insurance providing proof of insurance to the Division of Procurement and Contracts within ten (10) working days from the date of notification of award. The State's Office of Risk and Insurance Management will review insurance certificates and/or proof of self-insurance documentation before execution of the Agreement. Refer to Exhibit E

in the Proposed Form of Agreement (Attachment 11), for the applicable and specific Insurance requirements and coverage limits.

- B. The insurance carrier shall provide an endorsement for the additional insured statement as follows:

The State of California, its officers, agents, employees, and servants shall be included as additional insured, but only with respect to work performed for the State of California under this Agreement.

13. Darfur Contracting Act

- A. The Darfur Contracting Act, PCC section 10475-10481, applies to any company that currently or within the previous three years has had business activities or other operations outside of the United States. The Act was passed by the California Legislature and signed into law by the Governor to preclude State agencies generally from contracting with “scrutinized” companies that do business in the African nation of Sudan (of which the Darfur region is a part), for the reasons described in PCC section, 10475. All bidders shall complete the Darfur Contracting Act Certification form, Attachment 7, and submit with bid.
- B. If your company has not, within the previous three years, had any business activities or other operations outside of the United States, complete Option 1 on the Darfur Contracting Act Certification form, Attachment 7.
- C. A scrutinized company is a company doing business in Sudan as defined in PCC section 10476. Scrutinized companies are ineligible to, and cannot bid on, or submit a proposal for an Agreement with a State agency for goods or services. (PCC section 10477(a)).
- D. Therefore, PCC section 10478 (a) requires a company that currently has (or within the previous three (3) years has had business activities or other operations outside of the United States to certify that it is not a “scrutinized” company when it submits a bid or proposal to a State agency.
- E. A scrutinized company may still; however, submit a bid or proposal for an Agreement with a State agency for goods or services if the company first obtains permission from the Department of General Services (DGS) according to the criteria set forth in PCC section 10477(b).

14. Bid Submittal

- A. All bids must be submitted and received by Caltrans Division of Procurement and Contracts, Bid Unit by dates and times shown in the IFB, Section C) Bid Requirements and Information, Item 1) Time Schedule.

B. The mailing package/envelope should be labeled as follows:

Note: All packages not clearly or properly labeled as indicated below, including overnight mail and hand delivered packages may be rejected.

YOUR RETURN ADDRESS	Agreement No. 06A1964	postage
	Bid Due Date: May 8, 2014 Bid Due Time: 2:15 P.M. Bid Opening: 3:00 P.M. Attention: Adrienne Taylor	
	Department of Transportation Division of Procurement and Contracts ATTN: BID UNIT 1727 30th Street, 4 TH Floor, MS-65 Sacramento, CA 95816-7006	
BID SUBMITTAL DO NOT OPEN		

C. **Late bids will not be considered.**

D. All bids shall include the documents identified on the IFB's Attachment Checklist (Attachment 10)

E.). Bids not including the required attachment(s) shall be deemed non-responsive. A non-responsive bid is one that does not meet the basic bid requirements.

F. Only an individual who is legally authorized to bind the proposing firm contractually shall sign all documents requiring a signature, and each document must bear an original ink signature.

G. If your bid is hand delivered, you must date and time stamp the sealed envelope/package immediately upon arrival. The date/time stamp machine is located in the lobby on the first floor to the right of the security guard station at the address noted above. After date/time stamping, the bid should be placed in the locked bid cabinet located below the time stamp. If the bid package is too large to be electronically stamped, date/time stamp one of the labels provided and attach it to the proposal package. When the bid package is too large for the locked bid cabinet, ask the security guard to call the Division of Procurement and Contracts reception desk at 227-6000 to have your bid package picked up.

H. Bid opening will be held at the above address at **3:00 PM** on the date specified in Section C - Bid Requirements and Information, Item 1 - Time Schedule. Bidders may participate in person or via teleconference by calling **1-866-700-7952** and entering the pass code **7089821#**. Calls will be accepted beginning at **2:50 PM** until the conclusion of the bid opening. Bids will be read in Agreement numeric order; questions will not be allowed; and information will not be repeated. Bid opening results will be posted online on the Division of Procurement and Contracts web site at <http://caltrans-opac.ca.gov/contracts/bidresults.htm> by 12:00 P.M. on the day

following the bid opening. The Agreement will be awarded to the lowest responsible bidder meeting the requirements outlined in the IFB.

- I. Bids must include the performance of all the services described herein. Any attempt to modify the bid document to deviate from the work specifications will not be considered and will cause a bid to be rejected.
- J. A bid may be rejected if it is conditional, incomplete, or if it contains any alterations of form or other irregularities of any kind. Caltrans may reject any bid on the basis that it is not responsive or from a non-responsible bidder, and may waive any immaterial deviation in a bid. Caltrans waiver of an immaterial defect shall in no way modify the IFB document or excuse the bidder from full compliance with all requirements if awarded the agreement.
- J. Costs for developing bids and in anticipation of award of an Agreement is entirely the responsibility of the bidder and shall not be charged to the State.
- K. Only an individual who is authorized to bind the bidding firm contractually shall sign the Bid/Bidder Certification Sheet (Attachment 5). The signature must also indicate the title or position that the individual holds in the firm. **An unsigned bid may be rejected.**
- L. A bidder may modify a bid after its submission by first withdrawing the original bid and then by resubmitting a new bid prior to the bid submittal deadline. Bidder modifications offered in any other manner, oral or written, will not be considered.
- M. A bidder may withdraw a bid by, prior to bid opening, submitting a written withdrawal request to Caltrans, signed by the bidder or an agent authorized in accordance with Section K above. A bidder may thereafter submit a new bid prior to the bid submittal deadline. Bids may not be withdrawn without cause subsequent to bid submittal deadline.
- N. Caltrans may modify the IFB prior to the date fixed for submission of bids by the issuance of an addendum sent to all parties who received a bid package.
- O. Caltrans reserves the right to reject all bids for reasonable cause.
- P. Bidders are cautioned not to rely on Caltrans during its evaluation process to discover and report to the bidder any defects and/or errors in the submitted documents. Before submitting their documents, bidders should carefully proof them for errors and full adherence to the IFB requirements.
- Q. Where applicable, the bidder should carefully examine work sites and specifications. Bidder shall investigate conditions, character, and quality of surface or subsurface materials or obstacles that might be encountered. No additions or increases to the Agreement amount will be made due to a lack of careful examination of work sites and specifications.
- R. Caltrans does not accept alternate Agreement language from a bidder. A bid with such language will be considered a counter proposal and will be rejected. The State's GTC are not negotiable. The GTC 610 may be viewed at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm>

15. Evaluation and Selection

- A. At the time of bid opening, each bid proposal's total and any small business and/or micro business information (if applicable) will be read aloud. Bids are considered preliminary pending review and verification of applicable bid requirements such as: small business preference, DVBE, DBE, licensing, bonding, qualifications, or other requirements as stated in the IFB. Agreements will be awarded to the lowest responsive responsible bidder.
- B. Each bid will be checked for the presence or absence of required information in conformance with the submission requirements of this IFB. Caltrans will check the bid submittal package to verify it received all required documents. Positive verification of required documents will be performed to determine its responsiveness to the State's needs.
- C. Bids that contain false or misleading statements, or which provide references, which do not support an attribute or condition claimed by the bidder, shall be rejected.
- D. The Agreement, if awarded, shall be awarded to the six lowest responsible bidders meeting the specifications, if six qualified bids are received. A bid meets the specifications if it complies with all of the requirements in this solicitation. In the event of a tie bid, Caltrans will draw lots to determine the successful bidder. Only one proposal or bid may be submitted by an entity: individual, firm, partnership, corporation, joint venture or combination thereof. Receipt of more than one bid from an entity will result in all bids from that entity being rejected and returned to the bidder.

16. Award and Protest

- A. Bid results may be viewed on the internet at 12:00 P.M. (Noon) on the first business day following the bid due date at <http://caltrans-opac.ca.gov>.
- B. Whenever an Agreement is awarded under a procedure that provides for competitive bidding, but the Agreement is not to be awarded to the low bidder, the low bidder shall be given notice five (5) working days prior to the award of the Agreement by telegram, electronic facsimile transmission, overnight courier, Internet transmission, or personal delivery.
- C. Upon written request by any bidder, notice of the proposed award shall be posted in a public place in the office of the awarding agency at least five (5) working days prior to awarding the Agreement.
- D. Grounds for Filing a Protest: After the issuance of the applicable Agreement award notices as specified in this IFB, the right to protest the proposed award of an Agreement is afforded any bidder who claims it should have been awarded the Agreement because it was the lowest responsible bidder meeting the specifications.
- E. Filing a Protest: The initial protest must be submitted to the Caltrans, Protest Unit prior to the award of the Agreement. When a protest has been submitted, the Agreement shall not be awarded until either the protest has been withdrawn or Caltrans has decided the matter.

- F. Within five (5) days after filing the initial protest, the protesting bidder shall file with Caltrans, Protest Unit with a full and complete written statement specifying the grounds for the protest. The written protest must be sent to the addresses below:

Department of Transportation Division of Procurement & Contracts Attention: Bid, Protest, & Dispute Branch Chief 1727 30 th Street, MS 65 Sacramento, CA 95816 Phone Number: (916) 227-6096 Fax Number: (916) 227-1950

It is suggested that you submit any protest by certified or registered mail.

- G. Upon award of the Agreement contractor shall complete and submit to Caltrans, the Payee Data Record form (STD 204), to determine if the contractor is subject to State income tax withholding pursuant to California Revenue and Taxation Code section 18662 et seq. This form can be found on the Internet at www.osp.dgs.ca.gov under the heading STANDARD FORMS. No payment shall be made unless a completed STD 204 has been returned to Caltrans.
- H. Prior to the award of the contract, the awarded bidder(s) must sign and submit to Caltrans, page one (1) of the Contractor Certification Clauses (CCC), Attachment 3, or this form can be obtained via the Internet at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm> Bidder may also, as an option, submit the CCC with bid package.

17. Standard Conditions of Service

- A. After award of the Agreement and execution of the Agreement, should the Contractor fail to commence work within five (5) working days after notification of the starting date, or suspend work for a period of five (5) continuous working days after work has begun, Caltrans may provide five (5) calendar days written notice, posted at the job site or mailed to the Contractor, to timely prosecute and complete the work or the Agreement may be terminated and liquidated damages of \$500.00 assessed for administrative costs for re-bidding the work or awarding the work to another Contractor. In addition, that Contractor shall be liable to Caltrans for the difference between the Contractor's bid price and the actual cost of performing the work by the second low bidder or by another Contractor.
- B. All performance under the Agreement shall be completed on or before the termination date of the Agreement.
- C. Antitrust Provisions
- 1) The Contractor offers and agrees and will require all of his other subcontractors and suppliers to agree to assign to the awarding body all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 USC section 15) or under the Cartwright Act [Chapter 2, commencing with section 16700, of Part 2 of Division 7 of the Business and Professions Code (BPC)] arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment made by the contractor and

all additional assignments made by the subcontractors and suppliers shall be deemed to have been made and will become effective at the time the awarding body tenders final payment to the Contractor without further acknowledgment or the necessity of tendering to the awarding body any written assignments.

- 2) If an awarding body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under GC sections 4550 - 4554, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, on demand, recover from the public body any portion of the recovery, including treble damages, and attributable overcharges that were paid by the assignor but were not paid by the public body as a part of the bid price, less the expenses incurred in obtaining that portion of the recovery. On demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under GC sections 4550 - 4554 if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.
- D. If the bidder is awarded the Agreement and refuses to sign the Agreement presented for signature within the time and manner required, the bidder will be liable to Caltrans for actual damages resulting to Caltrans therefrom or ten percent (10%) of the amount bid, whichever is less.
- E. Loss Leader usage is prohibited in this solicitation: It is unlawful for any person engaged in business within this State to sell or use any article or product as a "loss leader" as defined in Section 17030 of the California Business and Professions Code. "Loss Leader" means any article or product sold at less than cost: a) where the purpose is to induce, promote or encourage the purchase of other merchandise; or b) where the effect is a tendency or capacity to mislead or deceive purchasers of prospective purchasers; or c) where the effect is to divert trade from or otherwise injure competitors.
- F. No oral understanding or agreement shall be binding on either party.

F) Special Programs

The following Special Programs are applicable to this IFB.

1. Disadvantaged Business Enterprise Program

A. For Agreements with DBE Participation Goals

- 1) This solicitation and resultant Agreement is financed in whole or in part with federal funds and therefore subject to Title 49, Code of Federal Regulations, Part 26 (49 CFR 26) entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs." In compliance with 49 CFR 26, Caltrans set an overall annual DBE goal comprising both race neutral and race conscious elements. To ensure equal participation for DBE groups specified in 49 CFR 26.5, Caltrans specifies an Agreement goal for DBE participation. **The required goal for DBE participation in this solicitation is Twenty-one percent (21%).**

- 2) To ensure applicable participation of the specified DBEs as defined in 49 CFR 26.5, this solicitation's goal applies to all certified DBEs. Only certified DBE participation will count toward the Agreement goal for this solicitation. DBE participation will count toward Caltrans' federally mandated overall annual DBE goal. In order to ascertain whether its overall annual DBE goal is being achieved, Caltrans tracks DBE participation on all federal-aid contracts.
- 3) It is the bidder's responsibility to verify that the DBE firm is certified as a DBE by the specified bid submittal due date and time. For a list of DBEs certified by the California United Certification Program (CUCP), go to:
http://www.dot.ca.gov/hq/bep/find_certified.htm
- 4) Proposer shall complete and submit Attachment 2, Bidder/Proposer Disadvantaged Business Enterprise (DBE) Good Faith Efforts Documentation for detailed information and the required forms. Required forms will be made a part of the Agreement. Failure to meet the DBE goal or Good Faith Effort requirements and provide required DBE participation will result in the bid being rejected as non-responsive.
- 5) The requirement to advertise for the purpose of identifying potential DBEs is waived.

BID PROPOSAL**ATTACHMENT 1**

ADM-1412 (REV.06/2002)

Agreement Number 06A1964

CONTRACTOR'S NAME (Please Print):

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
1	20	Hour	Develop a Routine Work Plan: Including personnel, support services, overhead and profit, signed by a California Registered or Certified Professional.		
2	20	Hour	Develop an Expedited Work Plan (48 hour turnaround time): Including personnel, support services, overhead and profit, signed by a California Registered or Certified Professional.		
3	20	Hour	Develop a Routine Health and Safety Plan: including research, personnel, support services, overhead and profit, signed by an American Board of Industrial Hygiene Certified Industrial Hygienist. The Health and Safety plan will most typically cover the Contractor's work. Occasionally, Caltrans may request a Health and Safety plan for Caltrans employees or construction forces working in a contaminated area.		
4	20	Hour	Develop an Expedited Health and Safety Plan (48 hour turnaround time): including research, personnel, support services, overhead and profit, signed by an American Board of Industrial Hygiene Certified Industrial Hygienist. The Health and Safety plan will most typically cover the Contractor's work. Occasionally, Caltrans may request a Health and Safety plan for Caltrans employees or construction forces working in a contaminated area.		
5	40	Day	GPS Data Collection: (Includes Materials and Equipment. Labor not included.		
6	30	Site	Hollow Stem Augering: Mobilization/Demobilization: Includes all work necessary to transport to and from the site all personnel, materials, and equipment; first drill set-up and ultimate removal and decontamination of equipment and temporary facilities; and final cleanup of drilling location. Also includes hand augering mobilization/demobilization if required at the same site.		
7	5,000	Foot	Hollow Stem Auger Drilling: Bid cost includes backfilling of the borings.		
				TOTAL THIS SHEET	

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
8	20	Location	Mobilization/Demobilization of dual tube direct push drilling rig: Includes all work necessary to transport to and from the location all personnel, materials, and equipment; first drill set-up and ultimate removal and decontamination of equipment and temporary facilities; and final cleanup of drilling location.		
9	5,000	Foot	Dual Tube Direct Push Drilling: Direct Push Drilling: 0-50 feet Includes backfilling of the borings. Per foot calculation is the depth of each boring, not the total linear feet of the task order.		
10	40	Sample	Emplacement of direct push driven bailer 0-50 feet.		
11	400	Foot	Installing Monitoring Wells: Well completed inside hollow stem auger. Installation of 2-in diameter monitoring wells shall be bid as a surcharge added to the cost of drilling, above. Normal operating cost includes equipment, bentonite or grout, filter pack, personnel, support services, cleanup, construction of the monitoring well, decontamination and surveying wellhead elevation.		
12	400	Hour	Well Development. Includes all equipment, bailers, surge block, airlift piping..		
13	15	Well	Water level measurement, sounding, and recording data.		
14	15	Sample	Water sample from well: Includes monitoring equipment, well purging, purge water storage, field personnel, decontamination and clean up. Applies to well sampling events separate from drilling activities. Also includes Geotracker reporting.		
15	400	Foot	Temporary Well: Installation and removal of temporary 1 or 2 inch diameter well installed within a direct push or hollow stem borehole. The casing for the well shall be 1 or 2 inch ID PVC and have flush threaded joints and factory slotted (0.02") screens. The Contractor shall be capable of measuring groundwater levels, purging, and collecting groundwater samples from within the temporary well.		

(1) THE ABOVE QUANTITIES ARE ESTIMATES ONLY AND ARE GIVEN AS A BASIS FOR COMPARISON OF BIDS. NO GUARANTEE IS MADE OR IMPLIED AS TO THE EXACT QUANTITY THAT WILL BE NEEDED.

TOTAL THIS SHEET

(2) IN CASE OF DISCREPANCY BETWEEN THE UNIT PRICE AND THE TOTAL SET FORTH FOR A UNIT BASIS ITEM, THE UNIT PRICE SHALL PREVAIL.

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
16	25	Site	Mobilization/Demobilization for monitor well sampling: Includes all work necessary to transport to and from the site all personnel, materials and equipment, set up and breakdown of equipment, transportation of samples to the laboratory, and final clean up of site. Site includes wells within a 1 mile radius.		
17	5	Site	Mobilization/Demobilization for monitor well destruction. Includes all work necessary to transport to and from the site all personnel, materials and equipment, set up and breakdown of equipment, and final clean up of site. Site includes wells within a 1 mile radius.		
18	1,000	Foot	Monitor well destruction. Normal operating cost includes equipment, bentonite or grout, filter pack, equipment including perforation tools, compressors, personnel and support services.		
19	20	Site	Hand Augering Mobilization/Demobilization: Includes all work necessary to transport to and from the site all personnel, materials, and equipment, lithologic logging, ultimate removal, backfill of boreholes, decontamination of equipment and temporary facilities and final cleanup of drilling location.		
20	5,000	Foot	Hand-held auger: Normal operating cost includes equipment, geologist/engineer for lithologic logging, technician, back filling with bentonite or grout, cleanup, and decontamination. This bid item applies when hand augering is the only mode of sample acquisition. The item does not apply when a drill rig is also used as part of the investigation.		

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
21	25	Site	Mobilization/Demobilization - Trenching and excavation: Includes all work necessary to transport to and from the site all personnel, materials, and equipment; first set-up and ultimate removal and decontamination of equipment and temporary facilities; backfilling of trench/excavation pits and final cleanup of site.		
22	100	Day	Trenching/Excavation: Normal operating cost includes equipment, backhoe personnel, geologist/engineer for logging, support services, cleanup, and decontamination. Backhoe Case 580 or equivalent.		
23	2,000	Sample	Soil Sampling (for analysis): Includes collecting samples from drilling, hand augering, trenching or excavation and Geotracker reporting.		
24	400	Sample	Water sample from undeveloped boring.		
25	40	Sample	Surface water sample: Trench, ditch and stream samples.		
26	500	Hour	Registered Geologist or Engineering Geologist or Registered Engineer. Covers labor hours for field work, data analysis and report preparation. Also includes additional clerical assistance, supplies, overhead, fees and profits. Travel time, per diem and mileage (excluding drill rig mobilization) are covered in bid item 37.		
27	100	Hour	Certified Industrial Hygienist. Covers labor hours for field and office work on site. Travel time, per diem and mileage are covered in bid item 37.		
28	1,000	Hour	Technician. Covers labor hours for field and office work on site. Travel time, per diem and mileage for Technicians are covered in bid item 37.		
29	250	Hour	Non-registered professional with chemistry, engineering, geology or other science degree. Covers labor hours for field and office work on site. Travel time, per diem and mileage are covered in bid item 37.		

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
30	1,000	Hour	Laborer. Covers labor hours for field and office work on site. Travel time, per diem and mileage are covered in bid item 37.		
31	1,000	Hour	Equipment Operator. Covers labor hours for field work on site. Travel time, per diem and mileage are covered in bid item 37.		
32	40	Hour	Regulatory Agency/Public hearings and meetings to discuss reports and results (registered person in responsible charge of the investigation to attend). Travel time, per diem and mileage are covered in bid item 37.		
33	25	Day	Equipment: Organic Vapor Meter (Flame Ionization Detector).		
34	25	Day	Equipment: Hnu meter (Photo Ionization Detector).		
35	1,000	Drum	Equipment: Reconditioned 55 Gallon Drum (DOT #17H).		
36	15	Hour	Equipment: Level C Protection (per crew of 4 persons).		
37	25	Hour	Covers staff travel, per diem and mileage for personnel listed in bid items 26 through 32. This bid item excludes personnel mobilized under bid items 6, 8 and 19. Multiple staff may only charge mileage for one vehicle per trip to site.		
38	500	Linear Foot	Equipment: Temporary chain link fencing (includes installation and removal).		
39	50	Hour	Excavator (capable of pulling 10,000 gallon tank): Includes equipment and qualified operator to remove contaminated soil and tanks up to 10,000 gallons. The equipment shall be maintained to meet local air district requirements. Travel time, per diem and mileage are covered in bid item 37.		
40	50	Hour	Light Duty Loader/Backhoe: including a qualified operator. The equipment shall be maintained to meet local air district requirements. Travel time, per diem and mileage are covered in bid item 37.		

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
41	25	Hour	Extend-a-hoe capable of reaching 15 feet in depth: The contractor shall provide a back hoe with a minimum of 15-foot dig depth including a qualified operator. Equipment shall be maintained to meet local air district requirements. Travel time, per diem and mileage are covered in bid item 37.		
42	50	Hour	Trucking for Disposal (tank, soil, asbestos) including driver: Equipment to service transfer of materials to and from Site. Equipment shall be capable of transporting and handling loads up to 15 tons or 10,000-gal tanks. The contractor shall be capable of hauling the acceptable waste and/or acceptable construction debris to a lawfully approved disposal site. Driver must be qualified and licensed to service solid waste transfer stations in accordance with applicable Federal, State, and local laws. Travel time, per diem and mileage are covered in bid item 37.		
43	50	Hour	Certified Site Surveillance Technician: Certification is required by Title 8, California Code of Regulations, Article 2.6, Section 341.15 for individuals who contract to provide health and safety services for asbestos-related work (projects involving more than 100 square feet of asbestos-containing construction material). Travel time, per diem and mileage are covered in bid item 37.		
44	100	Hour	Certified Asbestos Consultant (CAC): An asbestos consultant certified by Cal/OSHA under 8 CA Code of Regs § 341.15 and 1529.		
45	100	Hour	Concrete Saw: This includes equipment and operator to service concrete saw cutting. The equipment shall be maintained and operated to meet local air district requirements. Travel time, per diem and mileage are covered in bid item 37.		
46	50	Hour	Vacuum Truck including operator: Conventional vacuum truck that can provide heavy-duty suction over long horizontal runs. Travel time, per diem and mileage are covered in bid item 37.		

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
47	30	Hour	Pressure Washer/Generator/Tank (trailer): Truck mounted or self contained decontamination system including pressure washer, trailer with water tank(s), and generator; no external		
48		%	Expedited Lab Turnaround Time - 48 hours: surcharges applied to elapsed turnaround time. Add % surcharge to regular bid price for each lab test. Standard turnaround is 5 business days.		
49		%	Expedited Lab Turnaround Time - 24 hours: surcharges applied to elapsed turnaround time. Add % surcharge to regular bid price for each lab test. Standard turnaround is 5 business days.		
50		%	Lab Quantity Discounts -11 to 25 samples: applies to all chemical and physical tests bid in the laboratory section only. Discount based on number of samples per single analytical method estimated on task order actually performed by lab per single chain of custody (COC) form or set of COCs with the same date, or samples sent to lab from a single sampling interval if number of samples determined for that interval established in advance.		
51		%	Lab Quantity Discounts - 26 to 50 samples: applies to all chemical and physical tests bid in the laboratory section only. Discount based on number of samples per single analytical method estimated on task order actually performed by lab per single chain of custody (COC) form or set of COCs with the same date, or samples sent to lab from a single sampling interval if number of samples determined for that interval established in advance.		

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PAGE 8 of 12

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
52		%	Lab Quantity Discounts -51 to 100 samples: applies to all chemical and physical tests bid in the laboratory section only. Discount based on number of samples per single analytical method estimated on task order actually performed by lab per single chain of custody (COC) form or set of COCs with the same date, or samples sent to lab from a single sampling interval if number of samples determined for that interval established in advance.		
53		%	Lab Quantity Discounts -101 or more samples: applies to all chemical and physical tests bid in the laboratory section only. Discount based on number of samples per single analytical method estimated on task order actually performed by lab per single chain of custody (COC) form or set of COCs with the same date, or samples sent to lab from a single sampling interval if number of samples determined for that interval established in advance.		
54	1500	Test	Laboratory Analysis - Elements Scan: (ICAP) U.S. EPA method 6010-liquid and/or soil matrix. All elements listed in method: Sb, As, Ba, Be, Cd, Cr (total), Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn.		
55	200	Test	Laboratory Analysis - WET (Waste Extraction Test - EPA Method 3050): Includes all digestion and filtration necessary to produce an extractable concentration for all elements and compounds other than hexavalent chromium (using citric acid buffer or de-ionized water).		
56	500	Test	Laboratory Analysis - Test methods for analyses of extractable concentration (CCR approved EPA Series 7000 methods): Any single element, Ba, Cd, Total Cr, Hexavalent Cr, Pb, Hg, Ni, Se, Ag		
57	15	Extract	Laboratory Analysis - Toxicity Characteristic Leaching Procedure (TCLP) (EPA 1311): Includes all preparation, extraction, and filtration of solids or liquids necessary to produce an extract for arsenic, barium, Cd, Pb, Hg, or Ag.		

(1) THE ABOVE QUANTITIES ARE ESTIMATES ONLY AND ARE GIVEN AS A BASIS FOR COMPARISON OF BIDS. NO GUARANTEE IS MADE OR IMPLIED AS TO THE EXACT QUANTITY THAT WILL BE NEEDED.

TOTAL THIS SHEET

(2) IN CASE OF DISCREPANCY BETWEEN THE UNIT PRICE AND THE TOTAL SET FORTH FOR A UNIT BASIS ITEM, THE UNIT PRICE SHALL PREVAIL.

BID PROPOSAL

ATTACHMENT 1

ADM-1412 (REV.06/2002)
 Agreement Number 06A1964

CONTRACTOR'S NAME (Please Print): PAGE 9 of 12

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
58	25	Test	Laboratory Analysis - Toxicity Characteristic Leaching Procedure (TCLP) (EPA 1311): Includes arsenic, barium, Cd, Pb, Hg, or Ag; analysis of extract.		
59	15	Test	Laboratory Analysis - Oil and Grease EPA 1664: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
60	50	Test	Laboratory Analysis - Gasoline: Modified EPA 8015 to determine Total Petroleum Hydrocarbons as gasoline in water and soil as described in the LUFT Field Manual (October, 1989).		
61	25	Test	Laboratory Analysis -Gasoline Analysis Package EPA 8015M/8021B/8260 to determine total Petroleum Hydrocarbons as gasoline in water and soil- Benzene, Toluene, Xylene, and Ethyl Benzene, Oxygenate Compounds (TBA, MTBE,DIPE, ETBE, and TAME).		
62	25	Test	Laboratory Analysis -Diesel Fuel and Motor Oil: Modified EPA 8015 to determine Total Petroleum Hydrocarbons as diesel fuel and motor oil in water and soil as described in LUFT Field Manual (October, 1989).		
63	10	Test	Laboratory Analysis -Organolead: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis per LUFT Field Manual.		
64	100	Test	Laboratory Analysis - Aromatic and Halogenated Volatile Organics EPA 8260B: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis. Aromatic and Halogenated Volatile Organics including BTEX and chlorinated solvents.		
65	25	Test	Laboratory Analysis - Organochlorine Pesticides and PCBs EPA 8081: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		

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- (2) IN CASE OF DISCREPANCY BETWEEN THE UNIT PRICE AND THE TOTAL SET FORTH FOR A UNIT BASIS ITEM, THE UNIT PRICE SHALL PREVAIL.

TOTAL THIS SHEET

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BID PROPOSAL**ATTACHMENT 1**

ADM-1412 (REV.06/2002)

Agreement Number 06A1964

CONTRACTOR'S NAME (Please Print):

PAGE 10 of 12

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
66	100	Test	Laboratory Analysis - Combined GC/MS for Volatile Organics and Fuel Oxygenate Compounds EPA 8260B.		
67	50	Test	Laboratory Analysis - GC/MS for Semi volatile Organics EPA 8270C: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
68	500	Test	Laboratory Analysis - EPA 6010 - ICAP any single element: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis. Bid item includes appropriate extraction procedure.		
69	25	Test	Laboratory Analysis - Atomic Absorption EPA 7000 series: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
70	15	Test	Laboratory Analysis - Hexavalent Cr by EPA 7199: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis. Includes digestion by EPA 3060.		
71	200	Test	Laboratory Analysis - Asbestos, Polarized Light Microscopy (PLM). Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
72	25	Test	Laboratory Analysis - Asbestos Phased Contrast Microscopy (PCM). Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
73	25	Test	Laboratory Analysis - Asbestos Transmission Electron Microscopy (TEM). Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
74	10	Test	Laboratory Analysis - pH Electrometric Measurement EPA 9040. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		

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BID PROPOSAL**ATTACHMENT 1**

ADM-1412 (REV.06/2002)

Agreement Number 06A1964

CONTRACTOR'S NAME (Please Print):

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ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
75	50	Test	Laboratory Analysis - Soil Ph, EPA 9045. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
76	20	Test	Laboratory Analysis - Specific Conductance, EPA 9050 Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
77	20	Test	Laboratory Analysis - Total Dissolved Solids (TDS), SM 2540C or SM 209B: Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
78	20	Test	Temperature (field measurement)		
79	20	Test	Conductivity (field measurement)		
80	20	Test	pH (field measurement)		
81	10	Test	Laboratory Analysis - Fish Bioassay (22CCR66696 (A)(4): Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
82	30	Hour	Air Monitoring – Real Time for Dust PDR-1000.		
83	30	Hour	Air Monitoring – Ambient (Personal Pumps with Cassettes)		
84	10	Test	Laboratory Analysis - Total Suspended Solids (TSS) SM 2540D. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
85	10	Test	Laboratory Analysis - Total Organic Carbon (TOC) SM 5310B Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
86	10	Test	Laboratory Analysis - Total Coliform Bacteria (Standard Method 9221A-D). Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
87	10	Test	Biological Oxygen Demand (BOD) SM 5210B. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		

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BID PROPOSAL**ATTACHMENT 1**

ADM-1412 (REV.06/2002)

Agreement Number 06A1964

CONTRACTOR'S NAME (Please Print):

PAGE 12 of 12

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE (In Figures)	TOTAL (In Figures)
88	10	Test	Chlorine by EPA 300.0. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
89	10	Test	Residual Chlorine by SM 4500 ClG. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
90	10	Test	Mercury by EPA 245.1 and 245.5 Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
91	10	Test	Fecal Coliform by Standard Method 9221A-E. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
92	10	Test	Fungus and Mold by Standard Method 915. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
93	20	Test	Poly Aromatic Hydrocarbons (PAHS) by EPA 8310. Includes all necessary digestion, filtration, and extraction to produce extract and conduct analysis.		
94	10	Week	Archive up to 50 samples after last set of requested analyses are performed by analytical lab.		
95	Extra Work: Reference this Agreement's Exhibit A, Scope of Work, Section 9, Extra Work.				\$300,000.00

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(3) Item 95 (above) is for unanticipated additional work that is required in order to fulfill the State's obligations. Contractor will be reimbursed at cost (including applicable sales tax). All costs are to be substantiated and approved by Caltrans' Contract Manager. No reimbursement will be made to the Contractor for any services not described in Exhibit A, Scope of Work.

TOTAL THIS PROPOSAL

DEPARTMENT OF TRANSPORTATION

DIVISION OF PROCUREMENT AND CONTRACTS MS-65

1727 30th STREET

SACRAMENTO, CA 95816-7006

PHONE (916) 227-6000

FAX (916) 227-6155

INTERNET <http://caltrans-opac.ca.gov>

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Be energy efficient*

April 15, 2014

NOTICE TO BIDDERS/PROPOSERS
DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM
AND
DBE PARTICIPATION GOAL

The Department of Transportation (Caltrans) has set an overall annual DBE goal comprising of both race neutral and race conscious elements to be in compliance with Title 49, Code of Federal Regulations, Part 26 (49 CFR 26). This regulation requires that all recipients of United States Department of Transportation (USDOT), Federal Highway Administration (FHWA) federal-aid shall establish an overall annual Disadvantaged Business Enterprises (DBE) goal. Caltrans is required to report to FHWA the DBE participation for all federal-aid contracts each year so that the overall annual DBE goal attainment efforts may be evaluated. Caltrans encourages DBE participation in the performance of agreements financed in whole or in part with federal funds.

Bidders and proposers are advised that Caltrans has established a federally mandated overall annual DBE goal comprising both race neutral and race conscious elements to ensure equal participation of DBE groups specified in 49 CFR 26.5. In compliance with 49 CFR 26, Caltrans set a contract goal for DBEs participating in this solicitation expressed as a percentage of the total dollar value of the resultant agreement.

The DBE participation goal for this solicitation is Twenty-one percent (21%).

To ensure applicable participation of the specified DBEs as defined in 49 CFR 26.5, this solicitation's goal applies to the following certified DBE groups: African Americans, Asian-Pacific Americans, Hispanic Americans, Native Americans, Subcontinent Asian Americans, or Women. Only DBE participation will count toward the contract goal for this solicitation.

The attached Kform15, Disadvantaged Business Enterprise (DBE) Information and Instructions for Bidders and subsequent forms **must** be submitted with the bid, cost proposal, price and/or rate schedule by the bid due date and time as indicated in the solicitation:

- ADM-0227f: Disadvantaged Business Enterprise (DBE) Information Participation, and/or
- ADM-0312f: Bidder/Proposer Disadvantaged Business Enterprise (DBE) Good Faith Efforts Documentation

Failure to complete and submit the required DBE information and forms, will be grounds for finding the bidder/proposer non-responsive and cause for rejection of the bid/proposal (also refer to the solicitation, Section D, Special Programs).

New Requirement effective February 28, 2011: The bidder/proposer awarded the Agreement shall complete and submit ADM-3069, Disadvantaged Business Enterprises Utilization Report with each invoice as required in the Proposed form of Agreement's Exhibit B, Budget Detail and Payment Provisions and Exhibit D, Special Terms and Conditions.

Please read this Notice and Attachments very carefully as bidder/proposer is responsible to ensure bid submittal documents are complete and accurate.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION AND INSTRUCTIONS FOR BIDDERS**ATTACHMENT 2**

I. AUTHORITY AND BIDDER'S RESPONSIBILITY

This solicitation is subject to Title 49, Code of Federal Regulations, Part 26 (49 CFR 26) entitled PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN DEPARTMENT OF TRANSPORTATION FINANCIAL ASSISTANCE PROGRAMS. Bidders/Proposers (bidder) shall be fully informed of the requirements of the regulations and Caltrans' DBE Program developed pursuant to the regulations. It is the policy of the State of California, Department of Transportation (Caltrans), that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR 26, be encouraged to participate in the performance of Agreements financed in whole or in part with federal funds. The Bidder should ensure that DBE firms have an opportunity to participate in the performance of this solicitation and shall take all necessary and reasonable steps for this assurance. The bidder shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of subcontracts.

Terms as used in this document:

- 'Caltrans' means 'State of California, Department of Transportation'
- 'Agreement' also means 'Contract'
- 'Bidder' also means 'proposer' or 'offerer'
- 'Work Codes' indicate the types of work DBE firms are certified to perform

It is the bidder's responsibility to make work available to DBEs and select portions of work, services, or materiel needed from the Proposed form of Agreement's, Exhibit A, Scope of Work. The required work, services and/or materiel must be relevant to the DBEs work codes to meet the contract goal for DBE participation in this solicitation or provide information to establish, that prior to bidding, the bidder made an adequate Good Faith Effort (GFE) to meet the goal.

To be eligible for award of the Agreement, the bidder shall demonstrate that the contract goal for DBE participation was met or that, prior to bidding, an adequate GFE to meet the goal was made. Final determination of goal attainment or GFE by the bidder will be at Caltrans' discretion.

Bidder is cautioned that even though its submittal indicates it will meet the stated DBE goal, its submittal should also include its GFE documentation along with DBE goal information to protect its eligibility for award of the Agreement in the event Caltrans, in its review, finds that the goal has not been met.

It is the bidder's responsibility to verify DBE certifications.

II. SUBMISSION OF DBE INFORMATION AND PARTICIPATION

In order to be considered a responsible and responsive bidder, the bidder must meet the contract goal and/or make a GFE to meet the contract goal for DBE participation as established for this Agreement (refer to Section III, DBE Certification Requirements, Section 4). Bidder shall submit the attached form(s).

- ADM-0227f, Disadvantaged Business Enterprise (DBE) Information
- ADM-0312f, Bidder/Proposer Disadvantaged Business Enterprise (DBE) Good Faith Efforts Documentation. Bidder shall provide sufficient documentation to demonstrate adequate GFEs were made. For disqualification examples, refer to the Instructions to Bidder/Proposer on page 1 of the ADM-0312f.

III. DBE CERTIFICATION REQUIREMENTS

It is the bidder's responsibility to be fully informed regarding the requirements of 49 CFR 26 and Caltrans' DBE Program developed pursuant to the regulations. Particular attention is directed to the following:

1. A DBE must be a small business firm defined pursuant to Section 3 of the Federal Small Business Act **and** certified through the California Unified Certification Program (CUCP). A DBE firm is a DBE certified through CUCP. In accordance with 49 CFR 26, the DBE must be certified by bid opening date of the Invitation for Bid (IFB), the Request for Proposal (RFP), or the Architectural and Engineering

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION AND INSTRUCTIONS FOR BIDDERS**ATTACHMENT 2**

(A&E) Request for Quotations (RFQ), before credit may be considered toward meeting the DBE goal. It is the bidder's (prime contractor's) responsibility to verify that DBEs are certified by accessing the CUCP database.

2. The CUCP database includes DBEs certified from all certifying agencies participating in the CUCP. If a firm is certified that cannot be located on the database, please contact the Caltrans Office of Certification toll free number 1-866-810-6346 for assistance.
3. Access the CUCP database from the Department of Transportation, Office of Business and Economic Opportunity (OBEO) web site at: <http://www.dot.ca.gov/hq/bep/>.
 - Click on the blue DBE Search Click Here button
 - Click on Click To Access DBE Query Form
 - Searches can be performed by one or more criteria
 - Follow instructions on the screen (read about NAICS definitions below)
 - "Start Search", is located at the bottom of the query form,
 - "Civil Rights Home" (OBEO), "Caltrans Home", and "Instructions/Tutorial" links are located on top of the query page.

MUST USE EITHER INTERNET EXPLORER 5.5 OR NETSCAPE 7 (OR GREATER) FOR THIS DATABASE.

Resources to Obtain a List of Certified DBEs for Caltrans Solicitations

Contractors bidding on Caltrans solicitations with a contract goal for DBE participation may contact the DBE supportive services consultant or obtain lists of certified DBEs from the CUCP database referenced above.

NAICS Work Codes and Work Descriptions

The North American Industry Classification System (NAICS) work codes are used to identify the type of work performed by DBEs. You will need to have the NAICS work code numbers before querying. The United States (US) Census Bureau has developed cross-references from Standard Industrial Classification (SIC) codes to the NAICS codes. Please visit the US Census Bureau web site for more information concerning work areas related to NAICS 237310 Highway, Street, and Bridge Construction, at the following location: <http://www.census.gov/epcd/naics02/def/ND237310.HTM>.

How to Obtain a Quarterly List of Certified DBEs without Internet Access

If you do not have Internet access, Caltrans also publishes a quarterly directory of certified DBE firms extracted from the on-line database. A copy of the quarterly directory of certified DBEs may be ordered from the Caltrans' Division of Procurement and Contracts/Materiel and Distribution Branch/Publication Unit by calling (916) 263-0822.

4. In order to be considered a responsible and responsive bidder, the bidder must meet the contract goal and/or make a Good Faith Effort to meet the contract goal for DBE participation established for the Agreement. The bidder can meet this requirement in one of two ways:
 - a. Meet the contract goal and document commitments for participation by DBE firms.
 - b. If the contract goal is not met or is partially met, the bidder must document an adequate GFE.
5. A bidder (**prime contractor**), **who is not a certified DBE**, will be required to document one or a combination of the following:
 - a. The bidder will meet the contract goal for DBE participation through work performed by DBE subcontractors, suppliers, or trucking companies.
 - b. Prior to bidding, the bidder made an adequate GFE to meet the contract goal for DBE participation.
6. A certified DBE may participate as a prime contractor, subcontractor, joint venture partner, as a vendor of material or supplies, or as a trucking company.
7. A certified DBE bidder not bidding as a joint venture with a non-DBE, is required to document one or more of the following:
 - a. The DBE bidder will meet the goal by performing work with its own forces.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION AND INSTRUCTIONS FOR BIDDERS**ATTACHMENT 2**

- b. The bidder will meet the contract goal for DBE participation through work performed by DBE subcontractors, suppliers, or trucking companies.
 - c. Prior to bidding, the bidder made adequate GFEs to meet the contract goal for DBE participation.
8. A DBE joint venture partner must be responsible for specific Agreement items of work, or portions thereof. Responsibility means actually performing, managing, and supervising the work with its own forces.
 9. The DBE joint venture partner must share in the capital contributions, control, management, risks and profits of the joint venture. The DBE joint venture must attach and submit the joint venture agreement with the ADM 0227F as instructed on page 2 of the form.
 10. A DBE must perform a Commercially Useful Function (CUF), pursuant to 49 CFR 26, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible for materiel and supplies to be used on the Agreement for negotiating price, determining quality, and quantity, installing (where applicable), and paying for the material itself.
 11. The bidder (prime contractor) shall list only one subcontractor for each portion of work as defined in its bid/proposal and all DBE subcontractors must be listed in the bid/cost proposal list of subcontractors.
 12. Any dollar amount of work, service or supplies proposed for DBE participation can be counted only once. That is, any further subcontracting or spending for DBE work, service or supplies already credited once for DBE participation cannot be counted again.
 13. A prime contractor who is a certified DBE is eligible to claim all of the work in the Agreement toward the goal except that portion of the work to be performed by non-DBE subcontractors.
 14. If the bidder performs and documents an adequate GFE to meet the goal, the award cannot be denied on the basis that the bidder failed to meet the goal.

IV. CREDIT: MATERIEL – SUPPLIES – TRUCKING COMPANIES**A. CREDIT FOR MATERIEL OR SUPPLIES PURCHASED FROM DBEs WILL BE AS FOLLOWS:**

1. If the materiel or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materiel or supplies will count toward the DBE goal.
2. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materiel, supplies, articles, or equipment required under the Agreement and of the general character described by the Agreement.
3. If the materiel or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materiel or supplies will count toward the DBE goal.
4. A DBE regular dealer is a firm that owns, operates or maintains a store, warehouse or other establishment in which the materiel, supplies, articles or equipment of the general character described by the specifications and required under the Agreement are bought, kept in stock and regularly sold or leased to the public in the usual course of business.
5. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business as provided in this paragraph if the person both owns and operates distribution equipment for the products.
6. Any supplementing of regular dealers' own distribution equipment shall be a long-term lease Agreement and not on an ad-hoc or Agreement by Agreement basis.
7. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this paragraph.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION AND INSTRUCTIONS FOR BIDDERS**ATTACHMENT 2**

8. Credit for materiel or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer will be limited to the entire amount of fees or commission charged for assistance in the procurement of the materiel and supplies or fees or transportation charges for the delivery of materiel or supplies required on a job site, provided the fees are reasonable and not excessive as compared with similar fees charged for services. The cost of materiel or supplies is not counted toward the DBE goal in this instance.

B. CREDIT FOR DBE TRUCKING COMPANIES WILL BE AS FOLLOWS:

1. The DBE must manage and supervise the entire trucking operation for which it is responsible on a particular Agreement and there cannot be a contrived arrangement for the purpose of meeting the DBE goal.
2. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the Agreement.
3. The DBE will receive credit for the total value of the transportation services it provides on the Agreement using trucks it owns, insures, and operates using drivers it employs.
4. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Agreement.
5. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.
6. A lease must indicate that the DBE has exclusive use and control over the truck. This does not preclude the leased truck from being used by others during the term of the lease with the consent of the DBE, as long as the lease gives the DBE absolute priority for use of the leased truck.
7. Leased trucks must display the name and identification number of the DBE.

V. USE AND/OR TERMINATION OF PROPOSED DBEs

If awarded the Agreement, the successful bidder must use the DBE subcontractor(s) and or supplier(s) proposed in its bid/proposal.

The Contractor may not substitute, add or terminate a subcontractor, supplier or, if applicable, a trucking company, listed in the original bid/proposal without the prior written approval of the Contract Manager and only as allowable as specified in the Agreement. This includes work that a prime contractor can perform with its own forces, or with a non-DBE firm, or another DBE firm.

Prior to the termination request, the prime contractor **must** notify the DBE, in writing, of the intent to terminate allowing for five days of response time in opposition of the rejection.

The prime contractor must have good cause in which to terminate the DBE firm. A good cause includes:

1. The DBE fails or refused to execute a written contract.
2. The DBE fails or refuses to perform the work consistent with normal industry standards.
3. The DBE fails or refuses to meet the prime contractor's nondiscriminatory bond requirements.
4. The DBE becomes bankrupt or has credit unworthiness.
5. The DBE is ineligible to work because of suspension and debarment.
6. It has been determined that the DBE is not a responsible contractor.
7. The DBE voluntarily withdraws, with written notification, from the contract.
8. The DBE is ineligible to receive credit for the type of work required.
9. The DBE owner dies or becomes disabled resulting in the inability to perform the work on the contract.
10. Or other documented compelling reason.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION AND INSTRUCTIONS FOR BIDDERS

ATTACHMENT 2

The Contractor must make an adequate GFE to find another certified DBE subcontractor to substitute for the original DBE. The GFE shall be directed at finding another DBE to perform at least the same amount of work under the Agreement as the DBE that was substituted or terminated to the extent needed to meet the established contract goal for DBE participation.

The requirement that DBEs must be certified by the bid opening date does not apply to DBE substitutions after award of the Agreement. Substitutions of DBEs after award must be certified at the time of the substitution or addition.

VI. AWARD

Award of the Agreement will be in accordance with the respective solicitation.

The bidder awarded the Agreement shall be responsible for implementing the applicable requirements of 49 CFR 26 in performance of the Agreement.

The bidder awarded the Agreement shall complete and submit ADM-3069, Disadvantaged Business Enterprises Utilization Report with each invoice as required in the Proposed form of Agreement's Exhibit B, Budget Detail and Payment Provisions and Exhibit D, Special Terms and Conditions.

ATTACHMENT 2

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION

ADM-0227f (Rev. 06/2012) Page 6 of 11 (CONTRACTS FEDERALLY FUNDED IN WHOLE OR IN PART)

Attachment 2

PART A – CONTRACTORS INFORMATION (Refer to Instructions on Page 2 of this form. Bidder/Proposer shall ensure all information provided is complete and accurate.)

CONTRACTOR'S BUSINESS NAME		AGREEMENT NUMBER	CONTRACT DOLLAR AMOUNT	DATE
CONTRACTOR'S BUSINESS ADDRESS		CITY		STATE ZIP CODE
CONTACT PERSON	BUSINESS PHONE ()	FAX NUMBER ()	EMAIL ADDRESS	

PART B – DBE INFORMATION AND DOCUMENTATION (Refer to Instructions in Page 2 of this form. Bidder/Proposer shall verify DBE certifications.) Contractor shall attach a copy of the bid (or price quote) from the DBE (on the DBE's Letterhead) for all DBEs listed below.

(1) Prime and Subcontractors: List Name(s) and addresses of all DBEs that will participate in this Agreement:	(2) Area Code & Phone Number	(3) Tier	(4) Description of Work, Service, or Materiel Supplied	(5) DBE or CUCP Certification Number.	(6) Ownership Code	(7) DBE \$ Amount Claimed	(8) % of \$ Value Claimed	(9) Caltrans Use Only %

PART C – FOR CALTRANS USE ONLY (Verification Completed by Civil Rights, Office of Business and Economic Opportunity):

PRINT VERIFIER'S NAME AND TITLE	SIGNATURE	DATE	CIVIL RIGHTS STAMP OF APPROVED
DBE PARTICIPATION <input type="checkbox"/> YES (%) <input type="checkbox"/> NO			

DISADVANTAGED BUSINESS ENTERPRISE (DBE) INFORMATION

AUTHORITY: Title 49, Code of Federal Regulations, Part 26 (49 CFR 26)

INSTRUCTIONS FOR COMPLETING FORM ADM-0227f (Please Type or Print Legibly):

PART A – CONTRACTOR INFORMATION

CONTRACTOR’S BUSINESS INFORMATION: Bidder’s/Proposer’s Business Name, Address, City, State, Zip Code, Contact Person, Business Phone, Fax Number, and Email Address.

Agreement Number: The Agreement number is the same number as the Invitation for Bid (IFB) or Request for Proposal (RFP) number.

CONTRACT DOLLAR AMOUNT: Total dollar amount that Contractor proposes to accomplish the Agreement.

Date: Date this form is completed.

PART B – DBE INFORMATION AND DOCUMENTS

PRIME: Complete if Prime is a certified DBE.

Sub-Contractor: Complete if the Subcontractor(s)/Supplier(s) are certified DBE. Please make and attach additional copies of page 1 if needed. Attach a copy of the bid (or price quote) from the DBE (on the DBE’s Letterhead) for all DBEs listed.

- Column 1 Enter the names (includes all certified DBE Prime and Subcontractors) and complete addresses of all certified DBE Contractor/Subcontractor/Supplier(s) that will be used in the Agreement.
- Column 2 Enter the area code and phone number of the corresponding certified DBE listed in Column 1.
- Column 3 Enter the Contracting Tier number for each DBE correspondingly listed in Column 1: 0 = Prime or Joint Consultant, 1 = Primary Subcontractor, 2 = Subcontractor/Supplier of level 1 Primary Subcontractor.
- Column 4 Enter a description that briefly captures the work to be performed or supplies to be provided by each corresponding DBE firm listed in Column 1.
- Column 5 Enter the DBE or CUCP Certification Number for the corresponding DBE listed in Column 1. Self-certification is NOT acceptable. DBEs must be certified by the submittal date identified in the IFB or RFP. For more certification and verification information, refer to the IFB’s or RFP’s Notice to Bidders/Proposers Disadvantaged Business Enterprise (DBE) Program and Participation Goal.
- Column 6 Enter the correct Ownership Code number below for the corresponding DBE listed in Column B.
 - 1 = Black American
 - 2 = Hispanic American
 - 3 = Native American
 - 4 = Asian-Pacific American
 - 5 = Subcontinent Asian American
 - 6 = Caucasian
 - 7 = Woman
 - 8 = Other
 - 9 = Not Applicable
- Column 7-8 Enter the dollar and/or percentage (%) of the dollar (\$) value claimed for each corresponding DBE listed in Column 1.

EXAMPLE:

PART B – DBE INFORMATION AND DOCUMENTATION (Refer to Instructions in Page 2 of this form. Bidder/Proposer shall verify DBE certifications.)

(1) List Name(s) and addresses of all DBEs that will participate in this Agreement:	(2) Area Code & Phone Number	(3) Tier	(4) Description of Work, Services, or Materiel Supplied	(5) DBE or CUCP Certification Number.	(6) Ownership Code	(7) DBE \$ Amount Claimed	(8) % of \$ Value Claimed	(9) Caltrans Use Only %
1B Jane Prime Inc., 1234 Jane’s Street, Jane’s City, CA, 04321	(XXX) 000-1111	0	Project management	XXXXXXXXX	7, 5	48,000	48%	
2B Joe Subcontractor Inc., 4567 Joe’s Street, Joe’s City, CA, 07654	(XXX) 111-0000	1	Design, surveys, environmental testing	000000000000	6	42,000	42%	
Supplier International LLC, 1100 X Street, Supplier’s City, CA, 45670	(111) XXX-0001	2	Survey instruments, testing materials	111111111111	3	10,000	10%	

ADDITIONAL INFORMATION:

- Form ADM-0312f should be submitted with the ADM-0227f to demonstrate good faith efforts (GFE) AND protect bidder’s/proposer’s eligibility for contract award in the event Caltrans determines the bidder/proposer failed to meet the DBE goal.
- A DBE joint venture partner shall submit the joint venture agreement with the form ADM-0227f.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

BIDDER/PROPOSER DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOOD FAITH EFFORTS DOCUMENTATION

CONTRACTOR'S NAME	IFB OR RFP OR RFQ NUMBER	DATE
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BIDDER/PROPOSER INSTRUCTIONS: Submittal of only the Disadvantaged Business Enterprise (DBE) Information/Participation form, ADM-0227f, may not provide sufficient documentation to demonstrate that adequate good faith efforts (GFE) were made by the bidder/proposer. Bidder/proposers prosing goal attainment should always submit documentation for making GFE to protect its eligibility for award should Caltrans, in its evaluation, find that the goal was not met. Examples of disqualification may include but are not be limited to: 1) A DBE subcontractor was not certified by Caltrans or a state or local participating agency that has a reciprocal agreement with Caltrans, by the bid/proposal due date and time; or 2) Bidder/proposer made a mathematical error resulting in failure to meet the goal. Bidder/Proposer must make an adequate GFE to be responsive. When applying for a determination of a GFE when no contract goals have been attained or when only partial goal(s) have been attained, bidders/proposers shall complete this Bidder/Proposer Disadvantaged Business Enterprise (DBE) Good Faith Efforts Documentation form, ADM-0312f, and submit the requested information below with its bid by the bid due date and time. **Bidder/Proposer is responsible to: (1) ensure information is complete and accurate, and (2) verify DBE certifications.**

1. ADVERTISEMENT DOCUMENTATION

List names and dates of each general circulation newspaper, trade paper and minority focused paper or other publication in which a request for DBE participation was placed. Attach a copy of the advertisement or proof of publication.

TITLE OF PUBLICATION	PUBLICATION DATE(S)	TITLE OF PUBLICATION	PUBLICATION DATE(S)

2. DBE DOCUMENTATION

- a. List the names and dates of written notices sent to certified DBE firms soliciting bids for the contract.
- b. List the dates and methods used for following up initial solicitations to determine with certainty whether or not the DBEs were interested.
- c. Attach a copy of any solicitation package, phone records, fax confirmations or solicitation follow-up correspondence sent to DBE firms.
- d. Identify information submitted to the bidder for this solicitation:

Check the appropriate box: IFB RFP RFQ

SOLICITATION

DATE MAILED	DATE PHONED	DATE OF FOLLOW-UP	FOLLOW-UP METHOD PHONE/EMAIL	NAME OF FIRM SOLICITED	CONTACT NAME	PHONE NUMBER

ATTACHMENT 2

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION

BIDDER/PROPOSER DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOOD FAITH EFFORTS DOCUMENTATION

ADM-0312f (REV 6/2012)

Page 9 of 11

CONTRACTOR'S NAME	IFB OR RFP OR RFQ NUMBER	DATE
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2. DBE DOCUMENTATION (Continued)

SOLICITATION

DATE MAILED	DATE PHONED	DATE OF FOLLOW-UP	FOLLOW-UP METHOD PHONE/EMAIL	NAME OF FIRM SOLICITED	CONTACT NAME	PHONE NUMBER

3. ITEMS OF WORK

Identify the items of work made available to DBE firms, including, where appropriate, any breakdown of the contract work into economically feasible units to facilitate DBE participation. Bidder/Proposer shall demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

ITEMS OF WORK:

BREAKDOWN OF ITEMS:

ATTACHMENT 2

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION

BIDDER/PROPOSER DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOOD FAITH EFFORTS DOCUMENTATION

ADM-0312f (REV 06/2012) Page 10 of 11

CONTRACTOR'S NAME	IFB OR RFP OR RFQ NUMBER	DATE
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4. DBE RESPONSES

List the DBE firms that responded or submitted bids/proposals to your solicitation for participation in this contract that were not accepted. Provide a summary of your discussion and/or negotiations with each, the name of the firm selected for that portion of work, and the reasons for your choice. Attach copies of quotes from DBE firms contacted

DBE FIRM NAME	PHONE NUMBER	RESPONDED		SELECTED		GIVE REASON FOR NON-SELECTION AND A SUMMARY OF DISCUSSIONS
		YES	NO	YES	NO	

5. ASSISTANCE TO DBEs – Bonding, Insurance, etc.

Identify efforts to assist DBEs in obtaining bonding, lines of credit, insurance, and/or any technical assistance related to requirements for the work or for plans and specification provided to DBEs.

ATTACHMENT 2

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION

BIDDER/PROPOSER DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOOD FAITH EFFORTS DOCUMENTATION

ADM-0312f (REV 06/2012) Page 11 of 11

CONTRACTOR'S NAME	IFB OR RFP OR RFQ NUMBER	DATE
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6. ASSISTANCE TO DBEs – Equipment/Materials, etc.

Identify efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate.

7. ADDITIONAL DATA

Provide any additional data to support a demonstration of GFE such as contacts with DBE assistance agencies. Identify the names of agencies, organizations, and groups providing assistance in contacting, recruiting, and using DBE firms. Attach copies of requests to agencies and any responses received, i.e., lists, Internet pages, etc.

NAME OF AGENCY/ORGANIZATION	METHODS/DATE OF CONTACT	RESULTS

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

ATTACHMENT 3
CONTRACTOR CERTIFICATION CLAUSES

CCC-307

CERTIFICATION

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective Contractor to the clause(s) listed below. This certification is made under the laws of the State of California.

<i>Contractor/Bidder Firm Name (Printed)</i>		<i>Federal ID Number</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in the County of</i>	

CONTRACTOR CERTIFICATION CLAUSES

1. STATEMENT OF COMPLIANCE: Contractor has, unless exempted, complied with the nondiscrimination program requirements. (Gov. Code §12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities.)

2. DRUG-FREE WORKPLACE REQUIREMENTS: Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

b. Establish a Drug-Free Awareness Program to inform employees about:

- 1) the dangers of drug abuse in the workplace;
- 2) the person's or organization's policy of maintaining a drug-free workplace;
- 3) any available counseling, rehabilitation and employee assistance programs; and,
- 4) penalties that may be imposed upon employees for drug abuse violations.

c. Every employee who works on the proposed Agreement will:

- 1) receive a copy of the company's drug-free workplace policy statement; and,
- 2) agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

3. NATIONAL LABOR RELATIONS BOARD CERTIFICATION: Contractor certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against

Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a Federal court, which orders Contractor to comply with an order of the National Labor Relations Board. (Pub. Contract Code §10296) (Not applicable to public entities.)

4. CONTRACTS FOR LEGAL SERVICES \$50,000 OR MORE- PRO BONO REQUIREMENT:

Contractor hereby certifies that contractor will comply with the requirements of Section 6072 of the Business and Professions Code, effective January 1, 2003.

Contractor agrees to make a good faith effort to provide a minimum number of hours of pro bono legal services during each year of the contract equal to the lessor of 30 multiplied by the number of full time attorneys in the firm's offices in the State, with the number of hours prorated on an actual day basis for any contract period of less than a full year or 10% of its contract with the State.

Failure to make a good faith effort may be cause for non-renewal of a state contract for legal services, and may be taken into account when determining the award of future contracts with the State for legal services.

5. EXPATRIATE CORPORATIONS: Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State of California.

6. SWEATFREE CODE OF CONDUCT:

a. All Contractors contracting for the procurement or laundering of apparel, garments or corresponding accessories, or the procurement of equipment, materials, or supplies, other than procurement related to a public works contract, declare under penalty of perjury that no apparel, garments or corresponding accessories, equipment, materials, or supplies furnished to the state pursuant to the contract have been laundered or produced in whole or in part by sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor, or with the benefit of sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor. The contractor further declares under penalty of perjury that they adhere to the Sweatfree Code of Conduct as set forth on the California Department of Industrial Relations website located at www.dir.ca.gov, and Public Contract Code Section 6108.

b. The contractor agrees to cooperate fully in providing reasonable access to the contractor's records, documents, agents or employees, or premises if reasonably required by authorized officials of the contracting agency, the Department of Industrial Relations, or the Department of Justice to determine the contractor's compliance with the requirements under paragraph (a).

7. DOMESTIC PARTNERS: For contracts over \$100,000 executed or amended after January 1, 2007, the contractor certifies that contractor is in compliance with Public Contract Code Section 10295.3.

DOING BUSINESS WITH THE STATE OF CALIFORNIA

The following laws apply to persons or entities doing business with the State of California.

1. **CONFLICT OF INTEREST**: Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the awarding agency must be contacted immediately for clarification.

Current State Employees (Pub. Contract Code §10410):

- 1). No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.
- 2). No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

Former State Employees (Pub. Contract Code §10411):

- 1). For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.
- 2). For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the 12-month period prior to his or her leaving state service.

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void. (Pub. Contract Code §10420)

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for preparatory time and payment for per diem. (Pub. Contract Code §10430 (e))

2. **LABOR CODE/WORKERS' COMPENSATION**: Contractor needs to be aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Contractor affirms to comply with such provisions before commencing the performance of the work of this Agreement. (Labor Code Section 3700)

3. **AMERICANS WITH DISABILITIES ACT**: Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

4. **CONTRACTOR NAME CHANGE**: An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of legal documentation of the name change the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.

5. CORPORATE QUALIFICATIONS TO DO BUSINESS IN CALIFORNIA:

- a. When agreements are to be performed in the state by corporations, the contracting agencies will be verifying that the contractor is currently qualified to do business in California in order to ensure that all obligations due to the state are fulfilled.
- b. "Doing business" is defined in R&TC Section 23101 as actively engaging in any transaction for the purpose of financial or pecuniary gain or profit. Although there are some statutory exceptions to taxation, rarely will a corporate contractor performing within the state not be subject to the franchise tax.
- c. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California. Agencies will determine whether a corporation is in good standing by calling the Office of the Secretary of State.

6. RESOLUTION: A county, city, district, or other local public body must provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body which by law has authority to enter into an agreement, authorizing execution of the agreement.

7. AIR OR WATER POLLUTION VIOLATION: Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

8. PAYEE DATA RECORD FORM STD. 204: This form must be completed by all contractors that are not another state agency or other governmental entity.

ATTACHMENT 4

**NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER
AND SUBMITTED WITH BID FOR PUBLIC WORKS**

This document must be notarized.

STATE OF CALIFORNIA

)

) SS

COUNTIES OF Monterey, San Benito San Luis Obispo, Santa Barbara, Santa Cruz,
Madera, Fresno, Tulare, Kings, Kern, Riverside, San Bernardino, Mono, Inyo, Amador,
San Joaquin, Stanislaus, Merced, Mariposa, Tuolumne, Calaveras and Alpine)

, being first duly sworn, deposes and

says that he or she is
(position or title)

of

(the bidder)

The party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Dated:

By

(person signing for bidder)

ATTACHMENT 5
BID/BIDDER CERTIFICATION SHEET

Only an individual who is authorized to bind the bidding firm contractually shall sign the Bid/Bidder Certification Sheet. The signature must indicate the title or position that the individual holds in the firm. This Bid/Bidder Certification Sheet must be signed and returned along with all "required attachments" as an entire package with original signatures. The bid must be transmitted in a sealed envelope in accordance with IFB instructions.

- A. Our all-inclusive bid is submitted in a sealed envelope marked "**Bid Submittal - Do Not Open**".
- B. All required attachments are included with this certification sheet.
- C. The signature affixed hereon and dated certifies compliance with all the requirements of this bid document. The signature below authorizes the verification of this certification.
- D. The signature and date affixed hereon certifies that this bid is a firm offer for a 90-day period.

An Unsigned Bid/Bidder Certification Sheet May Be Cause for Bid Rejection

1. Company Name	2. Telephone Number ()	2a. Fax Number ()
3. Address		
Indicate your organization type:		
4. <input type="checkbox"/> Sole Proprietorship	5. <input type="checkbox"/> Partnership	6. <input type="checkbox"/> Corporation
Indicate the applicable employee and/or corporation number:		
7. Federal Employee ID No. (FEIN)	8. California Corporation No.	
Indicate applicable license and/or certification information:		
9. Contractor's State Licensing Board Number	10. PUC License Number CAL-T-	11. Required
12. Bidder' Name (Print)	13. Title	
14. Signature	15. Date	
16. Are you certified with the Department of General Services, Office of Small Business and Disabled Veteran Business Enterprise Services (OSDS) as:		
a. Small Business Enterprise Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, enter certification number: _____	b. Disabled Veteran Business Enterprise Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, enter your service code below: _____	
NOTE: A copy of your Certification is required to be included if either of the above items is checked " Yes ".		
Date application was submitted to OSDS, if an application is pending: _____		
17. Are you a Non-Small Business committing to the use of 25% Certified Small Business Subcontractor Participation? Yes <input type="checkbox"/> No <input type="checkbox"/>		
If Yes, complete and return the Bidder Declaration form, GSPD-05-105 with your bid.		

Completion Instructions for Bid/Bidder Certification Sheet

Complete the numbered items on the Bid/Bidder Certification Sheet by following the instructions below.

Item Numbers	Instructions
1, 2, 2a, 3	Must be completed. These items are self-explanatory.
4	Check if your firm is a sole proprietorship. A sole proprietorship is a form of business in which one person owns all the assets of the business in contrast to a partnership and corporation. The sole proprietor is solely liable for all the debts of the business.
5	Check if your firm is a partnership. A partnership is a voluntary agreement between two or more competent persons to place their money, effects, labor, and skill, or some or all of them in lawful commerce or business, with the understanding that there shall be a proportional sharing of the profits and losses between them. An association of two or more persons to carry on, as co-owners, a business for profit.
6	Check if your firm is a corporation. A corporation is an artificial person or legal entity created by or under the authority of the laws of a state or nation, composed, in some rare instances, of a single person and his successors, being the incumbents of a particular office, but ordinarily consisting of an association of numerous individuals.
7	Enter your federal employee tax identification number.
8	Enter your corporation number assigned by the California Secretary of State's Office. This information is used for checking if a corporation is in good standing and qualified to conduct business in California.
9	Complete if your firm holds a California contractor's license. This information will be used to verify possession of a contractor's license for public works agreements.
10	Complete if your firm holds a PUC license. This information will be used to verify possession of a PUC license for public works agreements.
11	Complete, if applicable, by indicating the type of license and/or certification that your firm possesses and that is required for the type of services being procured.
12, 13, 14, 15	Must be completed. These items are self-explanatory.
16	If certified as a Small Business Enterprise, place a check in the "yes" box, and enter your certification number on the line. If certified as a Disabled Veterans Business Enterprise, place a check in the "Yes" box and enter your service code on the line. If you are not certified to one or both, place a check in the "No" box. If your certification is pending, enter the date your application was submitted to the Department of General Services, Office Small Business and DVBE Services. To get certified, go to http://www.pd.dgs.ca.gov/smbus/default.htm
17	Check the applicable box. Complete and return GSPD-05-105 with your Bid.

ATTACHMENT 6

Invitation for Bid (06A1964)

BIDDER'S ACKNOWLEDGEMENT OF PREVAILING WAGE REQUIREMENTS

_____ acknowledges that State General Prevailing Wage Rates will
Print Name of Bidder

apply for the Counties of Monterey, San Benito San Luis Obispo, Santa Barbara, Santa Cruz, Madera, Fresno, Tulare, Kings, Kern, Riverside, San Bernardino, Mono, Inyo, Amador, San Joaquin, Stanislaus, Merced, Mariposa, Tuolumne, Calaveras and Alpine. If awarded this Agreement, I acknowledge it will be my responsibility to ensure the payment of appropriate prevailing wages rates to all employees who participate on this Agreement throughout the duration of this Agreement.

Bidder's Signature

Date

Attachment 7 Darfur Contracting Act

Instructions: Complete, as applicable, and submit with bid.

Public Contract Code Sections 10475 -10481 applies to any company that currently or within the previous three years has had business activities or other operations outside of the United States. For such a company to bid on or submit a proposal for a State of California contract, the company must certify that it is either a) not a scrutinized company; or b) a scrutinized company that has been granted permission by the Department of General Services to submit a proposal.

OPTION #1 - CERTIFICATION

If your company has not, within the previous three years, had any business activities or other operations outside of the United States, complete and sign this section and submit with bid package.

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that a) the prospective proposer/bidder named below has not, within the previous three years, had any business activities or other operations outside of the United States. b) I am duly authorized to legally bind the prospective proposer/bidder named below. This certification is made under the laws of the State of California.

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

OPTION #2 - CERTIFICATION

If your company, within the previous three years, has had business activities or other operations outside of the United States, in order to be eligible to submit a bid or proposal, please insert your company name and Federal ID Number and complete the certification below.

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that a) the prospective proposer/bidder named below is not a scrutinized company per Public Contract Code 10476; and b) I am duly authorized to legally bind the prospective proposer/bidder named below. This certification is made under the laws of the State of California.

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

Date Executed	Executed in the County and State of
---------------	-------------------------------------

OPTION #3 – WRITTEN PERMISSION FROM DGS

Pursuant to Public Contract Code section 10477(b), the Director of the Department of General Services may permit a scrutinized company, on a case-by-case basis, to bid on or submit a proposal for a contract with a state agency for goods or services, if it is in the best interests of the state. If you are a scrutinized company that has obtained written permission from the DGS to submit a bid or proposal, complete the information below.

We are a scrutinized company as defined in Public Contract Code section 10476, but we have received written permission from the Department of General Services to submit a bid or proposal pursuant to Public Contract Code section 10477(b). **A copy of the written permission from DGS is included with our bid or proposal.**

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

Date Executed	Executed in the County and State of
---------------	-------------------------------------

ATTACHMENT 8

BIDDER'S QUALIFICATION PACKAGE

Title Page

Please follow Instructions in IFB Package Required Format

Bidder's Name: _____

Bidder's Address: _____

Bidder's Telephone
Number: _____

Bidder's after-hours emergency telephone
number: _____

Bidder's Fax telephone number: _____

ATTACHMENT 8

BIDDER'S QUALIFICATION PACKAGE

PART 1: BIDDER'S PAST CONTRACT EXPERIENCE

Include appropriate experience for both the Bidder and any proposed subcontractors using the format below for each project identified.

Please include the name and current telephone number of a client representative who is familiar with the project and can attest to the participation, quality of work and timeliness of the proposer or subcontractor in performing the work.

DOCUMENTATION OF PAST CONTRACT EXPERIENCE

Submitted by: _____

Project name/location: _____

Name of client (owner or prime contractor): _____

Client contact and current telephone number: _____

Identify personnel who worked on this project: _____

Name of Regulatory Oversight Agency – Region: _____

Type of hazardous waste: _____

Date work was completed: _____

Description of the project and your firm's participation, including details requested in this IFB (use as much space or pages as necessary):

If reports were generated for this project, please list the types of reports and describe the contents:

ATTACHMENT 8
BIDDER'S QUALIFICATION PACKAGE

PART 2: DOCUMENTATION OF CURRENT CONTRACTOR'S CAPABILITIES

Firm Name and address:		Year Firm Established	
		Other offices to perform work:	
Personnel by Discipline (List each person only once, by primary functions)			
<input type="checkbox"/> Administrative	<input type="checkbox"/> Electrical Engineers	<input type="checkbox"/> Mining Engineers	<input type="checkbox"/> Field & Laboratory Technicians
<input type="checkbox"/> Architects	<input type="checkbox"/> Environmental Engineers	<input type="checkbox"/> Planners: Urban/Regional	<input type="checkbox"/> Asbestos/Lead Surveyors
<input type="checkbox"/> Chemical Engineers	<input type="checkbox"/> Environmental Scientist	<input type="checkbox"/> Sanitary Engineers	<input type="checkbox"/> Technical Assistants
<input type="checkbox"/> Civil Engineers	<input type="checkbox"/> Geologist	<input type="checkbox"/> Soils Engineers	
<input type="checkbox"/> Constructions Inspectors	<input type="checkbox"/> Hydrologists	<input type="checkbox"/> Specification Writers	
<input type="checkbox"/> Draftsmen	<input type="checkbox"/> Industrial Hygienists	<input type="checkbox"/> Structural Engineers	
<input type="checkbox"/> Ecologists	<input type="checkbox"/> Landscape Architects	<input type="checkbox"/> Surveyors	
<input type="checkbox"/> Economists	<input type="checkbox"/> Mechanical Engineers	<input type="checkbox"/> Toxicologist	
			Total Personnel
Key Personnel and Project Assignment (attach 1 resume for each person named)			
Certified Laboratories, and Certified Equipment Owned by Firm (include certification or license number, date, and expiration date) California certification only			
Contract Task To Be Performed By Firm (by category or bid item number)			
Organization Chart to be attached (See attached organization chart and resumes.)			

ATTACHMENT 8

BIDDER'S QUALIFICATION PACKAGE

PART 3: Subcontractors Provisions/List ADM 1511

The Bidder shall list all proposed subcontractors on Attachment 9 Subcontracting Provisions/List ADM 1511, with a Headquarters address, name of contact person, phone number, and area of expertise.

ATTACHMENT 8
BIDDER'S QUALIFICATION PACKAGE

Part 4: Subcontractor Qualification Statement

Include appropriate experience for both the Contractor and any proposed subcontractors using the format below for each project identified.

Please include the name and current telephone number of a client representative who is familiar with the project and can attest to the participation, quality of work and timeliness of the proposer or subcontractor in performing the work.

DOCUMENTATION OF PAST CONTRACT EXPERIENCE

Submitted by: _____

Project name/location: _____

Name of client (owner or prime contractor): _____

Client contact and current telephone number: _____

Identify personnel who worked on this project: _____

Name of Regulatory Oversight Agency – Region: _____

Type of hazardous waste: _____

Date work was completed: _____

Description of the project and your firm's participation, including details requested in this IFB (use as much space or pages as necessary):

If reports were generated for this project, please list the types of reports and describe the contents:

ATTACHMENT 9

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

SUBCONTRACTING PROVISIONS/LIST

Form ADM 1511 (REV. 9/06)

List all subcontractors that will be used in this Agreement. All subcontractors listed below must be used in accordance with the Agreement. This includes, if applicable, compliance with the subcontracting provisions and any Disabled Veteran Business Enterprise (DVBE), Small Business, Micro-Business, and Disadvantaged Business Enterprises (DBE) subcontractors. If none, bidder to write "NONE" in this space.

NAME	BUSINESS ADDRESS	DESCRIPTION OF PORTION OF WORK WHICH WILL BE DONE BY EACH CONTRACTOR*

ATTACHMENT 10
Invitation for Bid No. 06A1964

ATTACHMENT CHECKLIST

A complete bid or bid package will consist of the items identified below.

Complete this checklist to confirm the items in your bid package. Place a check mark or "X" next to each item that you are submitting to Caltrans. All attachments identified below (unless noted otherwise) are required and must be returned as instructed or your bid may be considered non-responsive. **Return the Attachment Checklist with your bid package.**

<u>Attachments</u>	<u>Attachment Name/Description</u>
Attachment 1	Bid Proposal, ADM 1412
Attachment 2	Disadvantaged Business Enterprise (DBE) Program
Attachment 3	Contractor Certification Clauses (CCC 307). The CCC 307 can also be found on the Internet at http://www.dgs.ca.gov/contracts . Page one (1) must be signed and submitted prior to the award of the contract.
Attachment 4	Non-Collusion Affidavit for Public Works (must be notarized)
Attachment 5	Bid/Bidder Certification Sheet
Attachment 6	Bidder's Acknowledgement of Prevailing Wage Requirements
Attachment 7	Darfur Contracting Act
Attachment 8	Documents required by Bidders Qualification Package, resume and required licenses
Attachment 9	Subcontractors Provision List/ /ADM 1511
Attachment 10	Attachment Checklist
_____	Copies of (list) required licenses and certification

Note: The Bidder shall submit four completed Bid Packages.

ATTACHMENT #11
 Proposed Form of Agreement

AGREEMENT NUMBER
06A1964
REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME
California Department of Transportation

CONTRACTOR'S NAME
TBD

2. The term of this Agreement is: **05/23/14** or upon Caltrans approval, through **08/31/17** whichever is later

3. The maximum amount of this Agreement is: **TBD**

Note to Bidders:
 The following pages represent a sample of the Agreement that will be awarded, if any, from this IFB. Please review it carefully and present any questions in writing to the contact identified for this IFB.

4. The parties agree to comply with the terms and conditions of the following reference made a part of the Agreement.	this
Exhibit A – Scope of Work	37 Pages
Exhibit B – Budget Detail and Payment Provisions	9 Pages
Exhibit C* – General Terms and Conditions (Electronic File: GTC 610)	
Exhibit D - Special Terms and Conditions	10 Pages
Exhibit E – Additional Provisions	9 Pages
Exhibit F – FHWA 1273 Requirements	21 Pages
Attachment 1 - Bid Proposal (attached at time of award)	12 Pages
Attachment 2 – Subcontractor Provisions/List (ADM 1511) (attached at time of award)	Pages
Attachment 3 – DBE Participation (ADM-0227f) (attached at time of award)	Pages
Attachment 4 - Disadvantaged Business Enterprises Utilization Report (<u>ADM-3069</u>)	2 Pages
Attachment 5 - List of Labor Compliance Offices	1 Page
Attachment 6 Federal Prevailing Wages can be viewed at http://www.wdol.gov/dba.aspx#3	
Attachment 7 - Sample Task Order	1 Page

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this Agreement as if attached hereto. *These documents can be viewed at <http://www.dgs.ca.gov/ols/Home.aspx>.*

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR		California Department of General Services Use Only
CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)		
BY (Authorized Signature)	DATE SIGNED (Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
ADDRESS		
STATE OF CALIFORNIA		
AGENCY NAME		
Department of Transportation(Caltrans)		
BY (Authorized Signature)	DATE SIGNED (Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
Carla D. Briseno, Contract Officer		
ADDRESS		
1727 30th Street, MS-65 Sacramento, CA 95816		

Exempt per:
 PCC 10295 (c) (2)
 S&H 135 & S&H 136.5

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SCOPE OF WORK

1. Contractor agrees provide the California Department of Transportation (Caltrans) with immediate and emergency hazardous material/waste, underground tank, container, and drum removal, discovered during Caltrans construction projects.

The Contractor shall furnish all tools, materials and equipment necessary to provide emergency and routine removal of underground tanks and hazardous material discovered within Caltrans highway right of way during highway project construction.

This multi-provider Agreement authorizes the Contractors identified in Section 9B to provide these services for various Caltrans Districts as set forth in Section 2 below. Services shall be performed on an on-call and as-needed basis as requested by the Caltrans Contract Manager or his/her designee within the specified regions through the issuance of Task Orders.

2. The services shall be performed in the following Caltrans Districts. The Districts shall include the following counties:

A. District 5

- 1) Monterey
- 2) San Benito
- 3) San Luis Obispo
- 4) Santa Barbara
- 5) Santa Cruz

B. District 6

- 1) Madera
- 2) Fresno
- 3) Tulare
- 4) Kings
- 5) Kern

C. District 8

- 1) Riverside
- 2) San Bernardino

D. District 9

- 1) Mono
- 2) Inyo

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Public Works - Federal

E. District 10

- 1) Amador
- 2) San Joaquin
- 3) Stanislaus
- 4) Merced
- 5) Mariposa
- 6) Tuolumne
- 7) Calaveras
- 8) Alpine

3. Background

Historically, Caltrans has found hazardous waste and underground storage tanks during highway construction. In the event hazardous materials, waste or underground tanks are discovered, the Contractor shall develop a corrective action plan and implement the plan in compliance with County, State, Federal, Cal OSHA laws and regulations and the requirements of this Agreement.

- 4.** This three-year Agreement will commence May 23, 2014 as presented herein or upon approval by Caltrans, whichever is later and no work shall begin before that time. This Agreement is of no effect unless approved by Caltrans. The Contractor shall not receive payment for work performed prior to approval of the Agreement and before receipt of notice to proceed by the Contract Manager. This Agreement shall expire on August 31, 2017. The services shall be provided during working hours, Monday through Friday, except holidays. The parties may amend this agreement as permitted by law.
- 5.** All inquiries during the term of this Agreement will be directed to the project representatives listed below. Contractor shall provide advance written notice and receive advance written approval by the Caltrans Contract Manager, without the necessity of an amendment, before changing the Project Manager noted below.

EXHIBIT A
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Department of Transportation	Contractor:
Section/Unit: Environmental/HW	Section/Unit:
Contract Manager:	Project Manager: TBD
Address: 855 M Street, Suite 200	Address:
Fresno, CA 93721	
Bus. Phone No.:	Bus. Phone No.:
Fax No:	Fax No:

6. Description of Work

The Contractor shall remove hazardous material/waste, underground storage tanks, pipes, appurtenances, or other subsurface structures encountered during Caltrans construction projects. To address the immediate need for and take action to identify, evaluate, and remove hazardous material/waste and/or underground storage tank, container, or drum during Caltrans construction projects, the Contractor shall provide personnel, equipment, materials, transportation and facilities to identify, test, evaluate, stabilize, treat, remove, transport, recycle, dispose of hazardous materials/waste, underground storage tanks, containers and drums from within the limits of Caltrans highway right of way and any hazardous waste releases originating on the Caltrans right of way that have migrated beyond the limits of Caltrans highway right of way in accordance with the requirements of this Agreement.

7. Request for Services (Task Order)

Services under this Agreement will be requested through a Task Order prepared by the Caltrans Task Order Manager following the procedures described herein. (See Sample Task Order, Attachment 7.) Task Orders are subject to the requirements of this Agreement. All provisions of this Agreement apply to all Task Orders, whether made in writing or by telephone. In the event a Task Order is made by telephone, the request will be confirmed in writing via Task Order by the Caltrans Task Order Manager within five working days. No Contractor expenditures are authorized under this Agreement unless specifically requested by Caltrans Task Order Manager in a Task Order. Caltrans shall assign a Caltrans Task Order Manager for each Task Order. The Caltrans Task Order Manager will be identified in each Task Order and is responsible for overseeing the Task Order work, answering questions from the Contractor, serving as the liaison between the Contractor and the Resident Engineer on the construction project, and making decisions regarding work under a Task Order.

8. Method for Assigning Task Orders

A) Task orders will first be assigned to the Contractor with the lowest total price for the specified bid line items required for that Task Order. The lowest total price will be computed by Caltrans for each Task Order and is based upon the sum of all the bid prices for each applicable line item in the Bid Proposal, Attachment 1 multiplied by the quantity utilized for the Task Order. A sample computation for a Task Order is shown below:

**EXHIBIT A
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Bid Item	Description	Rate	Quantity	\$ Amount
1	Develop a routine Work Plan	hour	8	\$500
6	Mob/Demob Hollow Stem Drilling Rig	site	2	\$2,400
7	Hollow Stem Auger Drilling/backfilling	feet	100	\$3,000
23	Soil Sampling	sample	10	\$150
26	Registered Geologist	hour	8	\$1,000
29	Non-Registered Professional	hour	24	\$1,680
31	Lab Analysis – Modified Gasoline 8014	test	10	\$300
			Total	\$9,030.00

B) If the Contractor offering the lowest total price for the Task Order is unable to perform the work, the Contractor with the next lowest total price for the Task Order will be called in ascending order, from second lowest to highest bid price. Caltrans will utilize the same computation method provided in Section 9 A to determine the next lowest total price for a Task Order.

<u>List of Contractors</u>		

C) The Contractor assigned a Task Order must notify the Caltrans District Hazardous Waste Coordinator within twenty-four hours whether it can perform the work within the time set forth in the Task Order. If that Contractor is unable to perform the work within the Task Order schedule, the Task Order will be assigned to the Contractor with the next lowest total price for the Task Order using the computation method provided in Section 9 A and so on in ascending order, from the second lowest to highest bid price.

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- D) The Contractor's ability to accept any additional work will be measured by the Caltrans Task Order Manager according to the Contractor's available resources, and the time requirements set by the Caltrans District Task Order Manager for completion of the work.
- E) Before accepting a Task Order, the Contractor must be capable of reporting to the construction site to meet the Caltrans Resident Engineer or the Caltrans District Hazardous Waste Coordinator within two business days after notification of award of the Task Order. The Contractor must then commence work within two business days after meeting with the Caltrans Resident Engineer or the Caltrans District Hazardous Waste Coordinator. The above referenced time may be lengthened at the sole discretion of the Caltrans Resident Engineer or Caltrans Task Order Manager.
- F) Any Contractor who accumulates a backlog of two Task Orders for which work has not commenced by the date set in the Task Order will not receive any additional Task Orders from the Caltrans Task Order Manager until the backlog of work is completed. All new Task Orders for services will be issued to the Contractor with the next lowest total price for the Task Order using the process set forth in Section 9 A.
- G) Task Orders may not be used to amend the Agreement, to extend beyond the termination date of this Agreement, or to exceed the scope of this Agreement.

9. Extra Work

- A) Caltrans may need to amend a Task Order to add Extra Work. For purposes of this Agreement, "Extra Work" is defined as unanticipated work under the general scope of work under this Agreement that is encountered on the construction site and such work is not included in Bid Items set forth in Attachment 1, Bid Proposal. Bid item number 95 is reserved as an estimate for the extra work costs throughout the life of this Agreement.
- B) To assign Extra Work, the Caltrans Task Order Manager will first ask the Contractor with the lowest bid price for the Task Order to bid on the Extra Work. If the Extra Work comprises fifty percent or more than the cost of the existing Task Order for that site, the Extra Work will be offered to all contractors to bid for the Extra Work. The bid price for Extra Work shall include compensation for all labor, equipment, supplies, travel, per diem, mileage, overhead and profit. Bids that are not responsive to the Extra Work offer, that lack sufficient itemization of the bid costs, or are not provided within the time limit set by the Caltrans Task Order Manager, shall not be considered for assignment of the Extra Work Task Order. If the Extra Work cost is less than fifty percent of the cost of the existing Task Order, then the Extra Work shall be offered to the Contractor assigned to that Task Order and the Task Order amended to include the cost of the Extra Work.

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10. Scope of Services

- A) The Contractor, as requested by the Caltrans Task Order Manager, shall remove hazardous materials/waste, underground tanks, containers, and drums found during Caltrans construction projects along Caltrans right of way.
- B) According to the terms of this Agreement, and within the time frame designated by Caltrans Task Order Manager in a Task Order, the Contractor shall furnish all necessary personnel, including appropriately licensed, registered and trained professionals and technicians, incidentals, equipment, materials, transportation and facilities to identify, evaluate, treat, remove, haul, dispose and/or mitigate hazardous materials/waste and/or underground tanks, containers, and/or drums from within the limits of the designated State controlled properties. The provisions of this Agreement will prevail in the event of inconsistencies between the Caltrans Task Order and the terms of this Agreement.
- C) As required by a Task Order, the Contractor will identify, neutralize, contain, collect, treat, remove, haul and dispose of chemicals, hazardous substances, other spilled materials, containers, drums, and underground tanks including contaminated surfaces, water and soil. The requested work may include such items as preparation of work plans and health and safety plans, sampling of unknown wastes, determining dimensional limits of waste, performing field screening tests, providing health and safety training, undertaking field monitoring for health and safety, providing laboratory services, and reporting on field and laboratory results. The Caltrans Task Order Manager has full authority to direct adjustments and changes in the services to be performed by the Contractor within this Agreement Scope of Work under specific Task Orders.
- D) The Contractor must provide the required services in conformance with the highest industry standards.
- E) The Contractor may encounter certain site-specific conditions that cannot reasonably be foreseen by Caltrans at the time work is assigned in a Task Order. Where these circumstances is confirmed by the Caltrans Task Order Manager, the parties may amend the Task Order to pay for the additional work at the bid price.

11. General Work Requirements

When a Task Order is issued by Caltrans Task Order Manager, the Contractor shall be directed to undertake any or all of the following types of work:

- A) Identifying the hazardous material/waste problem and securing the area as needed
- B) Delineating the exclusion zone/support zones
- C) Developing investigation plans, health and safety plans, and cost and time estimates
- D) Identifying contaminants using field screening instruments or tests
- E) Monitoring health and safety during field work, as appropriate

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- F) Obtaining samples for laboratory analysis
- G) Reporting findings and recommending remedial actions.
- H) Treating, removing, hauling and disposing of hazardous waste, as necessary
- I) Recommending follow-up actions
- J) Provide reports for use by regulatory agencies necessary to conduct hazardous waste operations
- K) Making prompt communications with the Caltrans Resident Engineer and Caltrans Task Order Manager on all critical issues relating to performing the requested work
- L) Maintaining a daily log to document detailed work activities

12. Standards for Performing Work

- A) All elements of the work performed by the Contractor must meet all legal requirements set by the pertinent local, State and Federal regulatory agencies, as well as the highest standards in the industry. Deviations from legal requirements or industry standards must be approved in writing in advance by the Caltrans Contract Manager; such deviations from legal requirements or industry standards may also require written regulatory agency approval. The investigative techniques (drilling methods, sampling plan, sample handling procedures, analytical methods and equipment) must be acceptable to all pertinent local, State and Federal regulatory agencies, and Caltrans. Failure to comply with the with this subsection may result in either termination of the Task Order or termination of the Agreement for Default per Exhibit D, section 2.
- B) The Caltrans Task Order Manager may obtain third party review of the Contractor's recommendations and findings from its investigation of the site. Third parties may include, but not be limited to, the responsible regulatory agency. Should the Contractor's findings or recommendations not comply with the requirements of this Agreement, including but not limited to, compliance with applicable local, State and Federal regulatory agency requirements or the highest industry standards, Caltrans may require the Contractor to revise the findings or recommendations. If the Contractor fails to revise the findings or recommendations in compliance with this section, then Caltrans may terminate the Task Order or terminate the Agreement for Default, per Exhibit D, section 2; the Contractor will only receive reimbursement for Task Order work that is completed and approved by the Caltrans Task Order up to the date of termination. If a Task Order is terminated, the Contractor shall provide the Caltrans Task Order Manager with all records, maps, and any other material generated or gathered under the Task Order. Under the direction of the Caltrans Task Order Manager, all samples of hazardous material or potential hazardous material in the possession of the Contractor or any subcontractor shall be disposed of in compliance with all applicable local, State and Federal laws and regulations.

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- C) If a Task Order is terminated pursuant to section 13 A or B, Caltrans may issue a new Task Order for the remaining work to be performed under the Task Order to the next lowest priced Contractor pursuant to the procedure set forth in section 9 A, above.
- D) Before beginning any invasive work that involves disturbance of the ground beyond surface sampling, the Contractor shall obtain an inquiry identification number from the appropriate Underground Service Alert (USA) notification center. The Contractor shall provide the inquiry identification number to Caltrans Task Order Manager Caltrans Resident Engineer and will maintain the number in the Contractor's project file.
- E) The Caltrans Task Order Manager shall be notified at least twenty-four hours before commencement of any field work. The Contractor shall check in with the Caltrans Resident Engineer or representative when entering a construction project.

13. Investigation and Field Activities

- A) Site investigations and other field activities are performed when potential hazardous materials/waste sites or underground tank sites are known to contain chemical spills and leaks. The investigation includes characterizing subsurface geological and hydrologic conditions, identifying chemical contaminants and determining the extent of contamination. Locating buried tanks, containers and drums may also be a part of the investigation.
- B) The Contractor will be expected to restore to its original condition any area of the site disturbed by excavation or related activities unless otherwise directed by the Caltrans Task Order Manager. Sample sites must be cleaned up after completion of sampling. This may require backfilling drill holes with impermeable material and lawful removal, transport and disposal of all drill cuttings.
- C) The investigation will include, but not be limited, to work plans, health and safety plans, surface geophysical investigations, trenching, drilling, sampling, chemical analysis, and reporting. The investigation will include preparation of a Work Plan (WP), Health and Safety Plan (HSP), Geophysical Survey Work Plan (GSWP), Sampling and Analysis Plan (SAP), Quality Assurance/Quality Control Plan (QA/QCP), and performance of investigation activities such as trenching, drilling, sampling, chemical analysis, and reporting with further recommendations as described in details in the sections below:
- D) Work Plan
 - 1) The Contractor may need to prepare a site-specific work plan with a detailed description of the planned site investigation for potentially contaminated soil, soil vapor, surface water, and groundwater. The potentially contaminated soil, soil vapor, surface water, and groundwater shall be sampled and analyzed for contaminants of concern (COCs). The COCs may include but are not limited to volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum hydrocarbons (including oxygenates such as methyl tert-butyl ether (MTBE) and t-butyl alcohol (TBA)), polychlorinated biphenyls (PCBs), pesticides,

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acids and bases, and metals including aeriaily deposited lead that were released, discovered or suspected during the construction activities of an on-going project. The investigation of the potentially impacted soil, soil vapor, surface water, and/or groundwater shall be conducted relatively quickly to address obvious issues at the site and to minimize environmental and health risks so that construction activities can resume. It should also include a site-specific Health and Safety Plan (HSP) for conducting the site investigation.

- 2) For site assessment and remedial investigation activities, the work plan shall utilize the site history past operations and activities at the site and other information that indicates a likelihood of releases to soil, surface water, and/or groundwater, the location and possible extent of the original release, information on the site topography, geology and hydrogeology, direction of groundwater flow and the contaminant migration pathway.
- 3) The Work Plan shall provide information on sampling methodology, prior sampling locations (if any) and rationale for proposed sampling locations, sampling depth, number of samples, analytical parameters and methods, detection limits, field screening methods, and management of soil cuttings including excavated/remediated soil, decontamination/purge water or waste generated as a result of the field investigation. The Work Plan should also include the criteria to be used to characterize soil, surface water, and groundwater and a tentative schedule.
- 4) Sampling method - describe step-by-step the standard sampling protocol (with appropriate equipment) for soil and/or groundwater samples that will be collected. Special collection and analytical methods to prevent the loss of volatile and unstable compounds shall be described.
- 5) Sample containers and the method of preservation for each matrix and analysis shall be described.
- 6) Packaging, labeling, marking, and shipping methods shall be included in the work plan.
- 7) Proper Quality Assurance/Quality Control (QA/QC) protocol shall be maintained during all activities, including sampling, sample preservation, and laboratory analysis.
- 8) Discussion of field documentation shall be included in the work plan such as sample identification, labeling, field logs, boring logs, and chain of custody;
- 9) Analytical methods, holding times, and detection limits for each contaminant and matrix shall be specified in the Work Plan;
- 10) The drilling equipment (drill bit, augers, and other drilling equipment utilized for the Task Order) shall be steamed-cleaned prior to use, between boring locations and/or at the end of each work day to prevent cross contamination. The generated rinsate/drill cuttings should be containerized in Federal United State Department of

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Transportation (USDOT) approved 55-gallon drums or other USDOT approved containers, sealed, labeled, and stored onsite while awaiting analytical results to determine appropriate disposition. However, a discussion on the management of these wastes including the disposal option should be included in the work plan as well. The statements regarding prevention of cross contamination, storage, and transportation of rinsate/drill cuttings shall be presented in the work plan as appropriate.

- 11) The investigative Work Plan should be prepared under the direction of a California Registered Geologist (PG), Certified Engineering Geologist (CEG), or Registered Civil Engineer (PE) experienced in the field of hazardous waste investigation and remediation and shall bear the signature and stamp of the registered/certified professional.
- 12) When investigative work permitting is required by a regulatory agency, Contractor will submit work plans and health and safety plans to the agency with jurisdiction for issuing investigative permit authorization.

14. Health and Safety Plan (HSP)

- A) A HSP is required prior to conducting any field investigation in order to protect the health and safety of all field personnel. This HSP is generally based on background information collected during preliminary assessment of the site from historic land use records. The HSP needs to describe the potential physical, chemical, and biological hazards, personal protective equipment, specific responsibilities, and emergency procedures. The HSP may be prepared by a trained staff person under the direction of a Certified Industrial Hygienist (CIH), however, the HSP shall bear the signature and stamp of the CIH.
- B) The Contractor shall ensure that its entire staff, including Caltrans personnel, while on the project site, complies with the HSP requirements. All personnel engaged in field investigation work shall be appropriately trained for such activity. Training shall comply with all Federal-OSHA, Cal-OSHA and Caltrans requirements.
- C) Caltrans assumes no responsibility for the health and safety of the Contractor or its subcontracted employees or other non-State employees. All on-site personnel shall meet the requirements of Cal/OSHA Hazardous Waste Operations and Emergency Response Standard 1910.120(e) – Training and 29 CFR 1910.120(f) – Medical Surveillance. All requirements shall be current.
- D) Before the field investigation begins, a copy of the HSP shall be distributed to all field investigation workers. Each worker shall certify by signing and dating the HSP that they have read, understand, and agree to comply with the site-specific HSP.
- E) Throughout the performance of all activities, the Contractor shall, at a minimum, fully comply with level D protection requirements. The designated Site Safety Officer (SSO) shall be responsible for monitoring field activities and informing the Contractor's staff of the need to upgrade to level C or higher. On-site upgrade to level

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C may be determined by Photo Ionization Detector (PID) readings for gasoline contamination, Flam Ionization Detector (FID) reading for diesel contamination during field activities or other field instruments required to detect for other airborne contaminants.

- F) When respirator use becomes necessary, the Contractor shall provide certification that the provisions of title 8 CCR Section 5192 have been met for all on-site employees. If any on-site personnel are not certified in the use of Level C or higher protection, the Contractor shall take immediate and prudent actions to remove uncertified site personnel from the work location.
- G) Under Level C protection or higher, the required equipment shall be worn, carried or made available on site as described in *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, National Institute for Occupational Safety and Health (NIOSH) publication No. 85-115, 1985.
- H) The contractor shall describe the Site Control and how the site will be physically configured to contain contaminated materials and protect human health and the environment. The site controls shall include the Exclusion or Hot Zone, Contamination Reduction of Warm Zone, and Support, Clean or Cold Zone (i.e. zone of no contamination).

15. Geophysical Survey

Prior to the actual field investigation, the Contractor may need to conduct a Geophysical Survey to identify potential buried objects such as underground utilities, drums, underground storage tanks, and metal containers. The Contractor shall conduct the survey using electromagnetic, ground penetrating radar, magnetic survey, metal detection techniques, or any other industry standard techniques available. Results of the geophysical survey shall be interpreted and included in a formal report. The complete survey shall be included as an appendix to the final investigation report.

16. Trenching

- A) Caltrans may require trenching for shallow investigation purposes. Excavation may be needed to determine shallow subsurface condition or to excavate and expose subsurface structures such as tanks, pipes, or sumps. When trenching is required, the Contractor shall provide backhoe equipment capable of excavating to a depth of 12 to 16 feet, personnel, sampling equipment, and decontamination equipment.
- B) The Contractor shall fulfill the following requirements:
 - 1) Comply with all State, Federal, and local laws and regulations, and highest industry standards regarding trench shoring and worker safety.
 - 2) Remove from the site all equipment, unused materials, temporary facilities and other miscellaneous items resulting from or used in the operation and replace or repair any items damaged as a result of the Contractor's operations.

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- 3) Restore the trenching site to pre-work condition unless directed by the Caltrans Task Order Manager.
- 4) Trenching activities shall be observed and supervised by a site engineer, geologist or engineering geologist. The subsurface geological and geotechnical conditions found during trenching shall be logged by the site geologist or engineering geologist. Under normal circumstances, Organic Vapor Analyzer (OVA) or Photo Ionization Detector (PID) measurements shall be taken to monitor the materials excavated and for health and safety of workers. Material removed from the trench shall be properly collected in containers or stockpiled on plastic sheeting provided by the Contractor and prepared to prevent runoff or other movement of hazardous waste. If the materials are non-hazardous, they shall be returned to the trench or otherwise legally disposed of by the Contractor. If contaminated, the material may be returned to the trench or temporarily stored as directed by the Caltrans Task Order Manager and ultimately disposed of in compliance with local, State, and Federal regulatory requirements. The cost of backfilling of the trench is included in the bid price for extraordinary temporary storage and ultimate disposal of containerized materials will be paid as Extra Work. Contractor shall use appropriate decontamination and disposal procedures.
- 5) Trenches or open excavations shall be covered and signed at the end of each work day.

17. Drilling Driven Bailer and Direct Push

- A) Contractor shall have the capability to drill through, core, and sample soft or poorly consolidated material, rock of varying densities, hardness, and degree of fracturing, engineered fill, asphalt, Portland Cement Concrete (PCC) and waste. Contractor shall also have the capability to properly drill, construct and develop monitoring and treatment wells. At the direction of the Caltrans Task Order Manager, the Contractor shall provide site boundary and borehole locations within 1 meter accuracy in either Geographic Coordinates or California State Plane Coordinates. The location of the drilling shall be provided in one of the following digital formats (as directed by the Caltrans Task Order Manager):
 - 1) Arc/info or ARCVIEW geographic information systems files.
 - 2) Trimble SSF or RINEX Global Positioning System Files.
 - 3) Excel ver. 5.1, 97 or 2000/Win-95, 98 or 2000 spreadsheet format.
 - 4) Delimited text files.
- B) This information shall be submitted in digital format upon request by the Caltrans Task Order Manager.

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18. Drilling and Sampling Capabilities

- A) Drill rigs must have the ability to drill and sample boreholes which are at least 8 inches in diameter and/or 12 inches in diameter to a depth of at least 50 feet. These machines must also be capable of hydraulically pushing thin-walled soil samplers or driving thick-walled soil samplers for coring sediments. In addition, these machines must be capable of obtaining continuous samples of soil through hollow-stem augers by either wireline method, using thin-walled sample tubes, or by a 5 foot sample tube used within the lead auger. Contractor shall be prepared to cut and repair borings through concrete and asphalt concrete.
- B) Apart from the machine drilling technology, the Contractor should have the necessary tools to collect surface and shallow soil samples, sampling in limited access areas, and to detect utility lines ahead of other drilling methods by use of a hand auger. All hand augering items devices shall be decontaminated prior to use and after collection of a sample in order to avoid cross contamination. Surface samples will be collected at the ground surface. Other samples will be collected by advancing the auger to a point immediately 6" above the desired sampling depth and then using a slide hammer to drive the sampler and a 6-inch-long stainless or brass liner into the undisturbed soil. Unless otherwise specified, all hand-augured borings shall be logged using the Unified Soil Classification System and sampled at the desired depth by driving a sampler.
- C) Direct push drilling method shall consist of a dual tube sampling system with continuous small diameter 1" to 2" steel tubes that are pushed or vibrated into the ground and generate minimal drill cutting waste. Clear acetate sleeves may be used for sample and core collection where samples will not be compromised by incompatibilities between the acetate and chemical contamination in the soil or ground water. Direct push rigs shall have the capability to drill to a depth of 50 feet in unconsolidated materials. This method may be used for soil core lithologic logging, soil vapor sampling, groundwater sampling, product sampling and soil sampling. Direct push (dual tube) drilling systems may be used at: limited-space work areas, under low overhead structures (less than 15' in height), in buildings, on uneven/sloping topography, or on soft terrain such as wetlands.
- D) The driven bailer (hydropunch or equivalent) technique shall use a temporary tool emplacement to obtain undisturbed water samples or product samples from ahead of the lead auger. Drill rigs or cone penetrometer rigs shall have the ability to sample ground water by use of a driven bailer to a depth of 50 feet in unconsolidated material. The sample inlet area shall be in hydraulic contact with the water-bearing zone and sample a discrete water interval. The water samples shall be unaltered and uncontaminated by drilling fluids or cuttings. The sampler shall be chemically inert.

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- E) The soil-vapor samples should be collected using vapor probes following the protocols contained in the Advisory-Active Soil Gas Investigations prepared by the Department of Toxic Substances Control and the Regional Water Quality Control Board.
- F) All emplacements shall be overseen, described, and signed in the field log by the Contractor's field geologist or engineering geologist. The Caltrans Task Order Manager shall also sign the final field log. The field log shall include, but not be limited to, description of materials penetrated, drilling method, drill penetration rate, bit pressure and drill chatter. When sampling is complete, the sampler shall be retrieved and the borehole backfilled with grout or neat cement during the same day or as directed by the Caltrans Task Order Manager.
- G) All borings shall be logged by the field geologist or engineering geologist. Boring logs shall include but not be limited to:
 - 1) A detailed description of the geologic character of each unit encountered.
 - 2) Classification by the Unified Soil Classification System.
 - 3) Depth at which changes were observed.
 - 4) Thickness of units.
 - 5) Depth to water.
 - 6) Color of subsurface material (using the Munsell Color System).
 - 7) Other pertinent information such as odor, staining, secondary mineralization.
- H) Field instrument readings shall be noted on the log corresponding to the depth of the sample. When borings are completed as monitoring wells, graphic representation of the well construction shall be added to the log. The Contractor shall have available all necessary equipment to perform the following functions:
 - 1) Tremie materials into boreholes.
 - 2) Maintain drilling fluids.
 - 3) Mix grout or grout mixtures.
 - 4) Pump grout in one continuous motion, beginning at the bottom of the space to be grouted.
 - 5) Surface completion to match existing asphalt, concrete, or soil.
 - 6) Well covers with locks.
- I) Borings that are not completed as monitoring wells shall be backfilled with grout, neat cement or bentonite grout during the same day or as directed by the Caltrans Task

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Order Manager. The cost of backfilling is included in the drilling bid item prices in **Attachment 1, Bid Proposal**. Contractor shall provide Caltrans approved containers and control and collect all drill cuttings and fluids. Contractor shall use appropriate decontamination and disposal procedures.

19. Well Installation and Development

Monitoring wells may be required to determine if ground water contamination is present, the extent of any contamination, and the general characteristics of subsurface hydrogeological conditions. Monitoring wells shall be designed and constructed to obtain water samples representative of the formation water.

A) Monitoring wells shall include the following elements:

- 1) Wells shall be screened and filter pack-material used to retain 80% of the formation material of the screened zone. Sieve analysis may be required to fulfill this task. Payment for field sieve analysis is included in the well installation bid item prices. Custom filter pack mixes and custom screens shall be paid as extra work.
- 2) Filter pack material shall extend generally 18 to 24 inches above the screen (or as appropriate), bentonite shall be placed above the filter pack (approximately 3 to 5 feet, and cement or cement bentonite grout shall be used to fill the annular space. Well surface completion shall be concrete which is integral with the concrete annular seal in the upper 2 feet of the hole. The materials shall be tremied into the annular space around the casing. Filter pack material shall be clean, inert material; bentonite shall be non-beneficiated.
- 3) Grout shall be mixed in correct proportions so as to not affect ground water chemistry.
- 4) Bentonite and/or grout shall not be allowed to free fall down the annular space if greater than 5 feet deep.
- 5) Centralizers shall be used when wells are not completed within a hollow stem auger.
- 6) Monitoring wells shall not provide a conduit for cross contamination of water bearing zones.
- 7) Wells shall be completed at the surface to prevent damage and tampering. Traffic proof covers or monuments shall be used.
- 8) Screen lengths shall be appropriate to the monitoring task and shall meet regulatory agency requirements.
- 9) Wells shall be designed to meet the requirements of appropriate regulatory agency.
- 10) Wells shall be completed so as to prevent surface water from entering the well.

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- 11) A third order survey shall be completed as required by the Task Order. The bench mark and backsight shall be noted in the report. If practicable the bench mark or monument shall be tied to the California Coordinate System.
- 12) Wells shall be developed after construction by surging with a vented surge block or equivalent technology, as approved by the Caltrans Task Order Manager, and pumped to remove sediments. Wells will be surged and pumped as often as necessary to produce sediment free water samples (i.e., turbidity of less than or equal to 10 Nepheline Turbidity Units (NTUs)). Costs of any additional work required to obtain sediment free water samples during the field contract period are included in the bid item prices for well development in Attachment 1, Bid Proposal and no additional compensation shall be paid.
- 13) Necessary well permit(s) shall be obtained by the Contractor prior to drilling and installation of wells. Wells shall be registered by the Contractor with the California Department of Water Resources (DWR). Copies of these records shall be included in the final report prepared for the Task Order. Boring and well cuttings placed in drums may be stored at the site or transported to a storage site in the vicinity. Temporary storage of waste shall be allowed pending analytical results but storage shall not extend beyond 30 days.
- 14) For future monitoring purposes and gradient determinations, the Contractor may need to survey the elevations of wells (top of casing) under the supervision of a licensed surveyor or registered civil engineer. Horizontal (X and Y coordinates) will be surveyed to the nearest 0.03 ft, with the vertical (Z coordinate) measured to the nearest 0.02 ft or as required in Caltrans Survey Manual. The California Coordinate System 1983, epic 1991.35 (CCS 83[1991.35]) coordinates shall be calculated for each location. All vertical measurements shall be based on the North American Vertical Datum of 1988 (NAVD 88) or as required in Caltrans Survey Manual. Unless otherwise specified in the Task Order, all survey data shall be submitted in Excel (2007) spreadsheet format and GIS-ready (Arc/Info or ArcView) format, and should include description, and X, Y, Z data.

20. Well Destruction

- A) The Contractor shall destroy 2 inch and 4 inch PVC wells up to 100 feet deep in accordance with applicable local and state requirements (Department of Water Resources (DWR) Bulletins 74-81 and 74-90). The bid item shall include the requirements of Section 23 E for wells in urban areas. Reports of well destruction shall be filed with DWR (per the requirement of DWR, Bulletin 74-81 and Part III Section 19, A-1, 2a) and copies of these reports shall be included in the draft and final report. Caltrans will provide site access when necessary. Neat cement or sand cement shall be used to decommission wells. Contractor shall obtain all necessary permits as part of the bid item.

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- B) The Contractor shall fully describe the well destruction in a report included with the final site investigation report and well destruction log, unless separately requested by the Caltrans Task Order Manager.

21. Sampling and Sample Analysis

- A) The objective of sampling is to obtain a representative sample of the subsurface ground materials and level of contamination at a site. Soil samples shall be obtained using thin and/or thick walled sample barrels with stainless steel inserts. (Acetate may be used for direct push core barrels). Costs for sample barrels, tubes, teflon tape, caps, and sealers are included in the sampling bid item prices in Attachment 1, Bid Proposal. Thin walled samplers shall be pushed into the soil while thick walled may be driven. Continuous coring of unconsolidated materials or rock may be requested in the Task Order. Soil samples shall be obtained in as undisturbed state as possible. Soil samples shall be obtained in stainless steel sleeves during drilling or hand sampling. This requirement may be waived by the Caltrans Task Order Manager in the case of non-volatile contaminants. No fluids shall be introduced into any sample boring except in special cases approved by the District Caltrans Task Order Manager. Sample tubes shall be capped with teflon film or aluminum foil and plastic caps, sealed with appropriate taping (not electrical or duct), preserved immediately at 4^o C and delivered to the laboratory for analysis within twenty-four hours from the time of the sampling. Soil samples with volatile organic compounds shall be preserved with dry ice. The Contractor shall obtain new samples without expense to Caltrans if QA/QC data shows any of the following:
- 1) Cross contamination has occurred.
 - 2) Samples were held too long before analysis.
 - 3) Samples were compromised while in the custody of the Contractor prior to delivery for analysis.
 - 4) Samples were compromised while in the custody of the Hazardous Waste Contractor prior to delivery for analysis.
 - 5) Chain of custody was broken.
 - 6) Sample collection methodology was not followed.
 - 7) Incorrect analysis was performed on the sample.
 - 8) A temperature of 4°C was not maintained during transport of samples to the laboratory.
- B) Water samples may be collected from surface sources, undeveloped borings, by direct push or one Penetration Test (CPT) systems, and monitoring wells. Samples taken from undeveloped borings shall be obtained with clean stainless steel or teflon bailers within the hollow stem auger. Water samples may also be obtained from monitoring wells after the well has been developed and purged. Well water shall be monitored for temperature, pH, and conductivity during purging. This monitoring shall be done during

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development and/or sampling and no additional compensation shall be allowed. Direct push or CPT systems may not use bailer systems which agitate the water sample.

- C) Surface sampling generally accomplished through the use of one of the following samplers or techniques
- 1) Dip sampler
 - 2) Direct method
 - 3) Discrete Depth samplers; e.g., Kemmerer or Van Dorn bottles
 - 4) Peristaltic pumps
 - 5) Storm water collection devices
- D) Samples shall be placed in sterilized bottles, preserved immediately at 4⁰ C and delivered to the laboratory within twenty-four hours of sampling. A trip blank shall be included in each ice chest. When sample preservation in the field is necessary, containers with the added preservative for water samples shall be supplied by the laboratory. Water samples shall be packed or secured in such a manner so as to prevent cross contamination of samples and freezing or breaking of containers. When wells are installed to determine if a chemical product is present, the well shall be sampled to determine if such a product exists before purging the well for dissolved constituents.
- E) The Contractor shall communicate to the laboratory the analyses required on samples and any special criteria for performing analyses. For metals analysis of soil samples, when the total metal concentration (TTLC) is greater than or equal to ten times the soluble threshold limit concentration (STLC), the laboratory shall contact the Contractor, who shall contact the Caltrans Task Order Manager for approval before proceeding with the waste extraction test (WET). When the total concentration is greater than twenty (20) times the TTLC, the toxicity characteristic leaching procedure (TCLP) test may be requested by the Task Order Manager. Unapproved chemical testing will be denied payment.
- F) Requirements for filtering shall also be communicated by the Contractor to the laboratory. If a sample is to be filtered before analysis for metals, no preservatives or acid shall be added until after filtration. Samples taken for dissolved metal determination shall be filtered through a 0.45 micron glass fiber filter. Filtration is not done for total metal analyses. If filtration is performed, it shall be done in-line or in the field immediately following sampling.
- G) As specified in the Task Order or otherwise directed by the Caltrans Contract Manager, samples shall be scanned for each of the following hazardous substances:

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- 1) Water quality elements.
 - 2) Polychlorinated biphenyls (PCBs).
 - 3) Total Petroleum Hydrocarbons (TPH).
 - 4) Pesticides.
 - 5) Toxic Elements and Heavy Metal Compounds.
 - 6) Halogenated volatile organics
 - 7) Semi-volatile organic compounds
 - 8) Polycyclic aromatic hydrocarbons (PAHs)
 - 9) Non-halogenated volatile organics.
 - 10) Asbestos.
 - 11) Characteristics of Toxicity
 - 12) Air quality and gaseous phase tests.
- H) Where preliminary analysis of the suspected hazardous material/waste samples or other sources of information has indicated the presence of any of the above categories, then laboratory analysis may be required for each indicated class of hazardous material.

22. General Laboratory Analysis Requirements

- A) Laboratories performing chemical analyses shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (CDPH-ELAP) for the specific laboratory test methods listed in the bid item prices in Attachment 1, Bid Proposal. Mobile laboratory units shall also be certified by CDPH. For specific test methods not as yet certified by CDPH, the laboratory may perform laboratory analysis only if presently certified by DCPH for comparable test methods; e.g., for volatile organics, semi volatile organics, or similar chemicals or if currently certified by US EPA as a Contract laboratory. Water sample analysis shall include surface water, ground water, rinse water, monitoring well samples or similar chemicals. Standard turnaround time for chemical analysis shall not exceed five working days.
- B) The Contractor is responsible for sample transport from work site to the laboratory, decontaminated or new sample containers, labels, appropriate preservation and chain of custody records. Costs of these services and materials are included in the bid item prices for laboratory analysis in Attachment 1 of the Bid Proposal.

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- C) Remaining and unused portions of samples shall be stored in a chilled state (4° C) at the laboratory for thirty days following completion of the last analysis for that group of samples listed on the same chain of custody form. Costs for such storage are included in the bid item prices for laboratory testing. Samples shall be held by the laboratory beyond thirty days if requested by the Caltrans Task Order Manager. Disposal of samples shall be the responsibility of the laboratory.
- D) If Caltrans requests retention of samples beyond the 30-day period following the final set of sample analyses, the retention costs shall be paid to the Contractor for up to 50 samples per week to hold the samples as per bid item 85 in Attachment 1, Bid Proposal.
- E) The Contractor and the laboratory shall provide a clear and accurate explanation of analytical results including graphical presentations and summaries of the laboratory data in reports, and shall make timely recommendations for further field activities.
- F) Laboratory Sampling Handling Procedures for Aerially Deposited Lead Investigation Samples.
- G) Soil samples taken from roadside sites are not homogeneous. Aerially deposited lead tends to be very soluble and total lead levels as low as 100 to 150 ppm can produce soluble lead levels greater than 5mg/l using the California Waste Extraction Test (WET). After the total analysis is run on a sample, a solubility test on sediment that is representative of the original total lead test should be run.
- H) Each sample shall be homogenized. A sample aliquot sufficient to cover the amount necessary for the Total and WET analysis shall then be taken. This aliquot shall be homogenized a second time and the total and soluble (if necessary) run on this aliquot. The homogenization process should not include grinding the samples.
- I) The lab should then compare the solubility verses total lead results for the sample set. The lab should see a high correlation factor using a regression analysis on the data. If the correlation is less than 0.8, the lab should re-examine the sample and determine if re-analysis is needed.

23. Mobile Laboratory

Mobile laboratories shall be certified by the California Department of Public Health - Environmental Laboratory Accreditation Program (CDPH-ELAP) for analyses which are specified in the Task Order. Mobile laboratory gas chromatograph equipment shall be calibrated on-site at the beginning of each working day as follows: Mobile laboratories shall record gas chromatograph system parameters on the first page of each day's chromatograms. The parameters include the temperatures of the injector, column, and detector; integrator parameters of the injector, peak markers, and baseline offset; column type, length and diameter; and packing material. The name of the operator and the date shall also be included. Any changes to the system parameters shall be documented.

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24. Quality Assurance/Quality Control (QA/QC)

QA/QC shall be performed for each method of analysis listed in the test methods. QA/QC data shall be reported in summary form for all samples submitted. The procedures specified by each test method shall include the following:

- A) One method blank for every ten samples or batch of samples or type of matrix, whichever is more frequent.
- B) One sample analyzed in duplicate for every ten samples or batch of samples or type of matrix, whichever is more frequent.
- C) One spiked sample for every ten samples or batch of samples or type of matrix, whichever is more frequent, with spike made at ten times the detection limit or at the analytical level.
- D) One equipment blank for every chain of custody by pouring deionized water onto the sampling device and into a laboratory container.
- E) One trip blank for every ice chest or sample shipment container. Water samples will require one laboratory prepared trip blank for each individual group of water samples transported to the laboratory. The contents of each ice chest or refrigerated container constitute an individual group of water samples.
- F) One field blank, which is a clean water sample, shall be opened at the site in the same location as the field sampling. The field blank shall be analyzed for the same compounds as the other samples.
- G) For all the field test instruments and measuring gauges, including handheld equipment, calibration must be maintained according to the manufacturer's recommended calibration schedule. Records of calibration must be kept intact in file and ready for inspection if requested by the Caltrans Task Order Manager.
- H) Trip blank(s), laboratory blank(s), spiked samples, and duplicate sample analyses shall be reported on either the laboratory testing report or the QA/QC summary report. Spiked samples shall be reported as percent spike recovery.
- I) Acetone, methylene chloride, chloroform, and methyl ethyl ketone (MEK) detected in soil and ground water contaminants shall be considered laboratory contaminants. It shall be the laboratory's responsibility to determine if the laboratory processes introduced these chemicals to the samples.
- J) Contractor shall submit to Caltrans the lab's written discussion documenting QA/QC evaluation and analytical checks with investigation results.
- K) Task Orders which have more than fifty soil or ground water samples shall also include a holding timetable. The holding timetable shall include the sample collection

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date, the date the sample was received at the laboratory and the dates the sample was extracted and analyzed.

- L) All costs for QA/QC work and reporting are included in the bid item prices for each test method in Attachment 1, Bid Proposal.
- M) The QA/QC summary reports shall include:
 - 1) Temperature of incoming samples.
 - 2) Constituent/analyte.
 - 3) Specific test method.
 - 4) Date (include holding timetable for more than fifty samples).
 - 5) Detection limit of the specific test method (mg/kg or mg/liter).
 - 6) Percent accuracy.
 - 7) Percent precision.
 - 8) Signature of laboratory manager or director.

25. Soil, Surface Water, and Ground Water Treatment and Disposal

- A) All treatment, recycling, and disposal of waste shall be conducted in accordance with applicable state and federal regulations. Operators of treatment units shall be permitted in accordance with Title 22 CCR section 67450.1 et seq. Caltrans reserves the right to approve/reject the type of treatment used.
- B) Cuttings, excavated soil, and waste water (including purged, development, and decontamination water) shall be transported and disposed in accordance with Title 22 CCR. Disposal facilities shall be permitted to receive waste by the Regional Water Quality Control Board and California Integrated Waste Management Board. Wastes shall not be disposed of out of state.
- C) Ground water will be discharged to publicly owned treatment works (POTWs) only with the written approval of the facility and when approved by the Caltrans District Hazardous Waste Coordinator.

26. Asbestos Concrete Products Removal

- A) The Contractor shall excavate, remove, containerize, transport, and dispose of asbestos concrete products (ACP). Every precaution shall be taken to prevent breakage of the ACP so that the potential release of asbestos fibers is kept to an absolute minimum. Where it becomes necessary to cut or saw the ACP, the ACP shall be worked wet and all cuttings shall be labeled, bagged, manifested, and disposed of appropriately. Payment will be made as Extra Work based upon an estimate of the number of linear feet of ACP to be removed including bends, wyes, tees, and other branches.
- B) The Contractor undertaking the removal shall be a Registered Asbestos Contractor per Section 6505.1 of the Labor Code and a Certified Asbestos Contractor per

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Section 7058.5 of the Business and Professions Code. Where removal of ACP is done outside of buildings and removal does not result in asbestos exposures to employees in excess of the action level as determined in Sections 1529 and 5208 of Title 8 CCR, the action is not considered asbestos related work.

- C) All handling, transportation, and disposal of ACP shall be done in accordance with Cal OSHA, Department of Toxic Substances Control, and Regional Water Quality Control Board requirements.

27. Final Cleanup

The Contractor shall leave each work site in a neat and clean condition. The Contractor shall haul away and legally discard any materials or debris caused by its operations from the job site at no additional cost to Caltrans.

28. Safety Requirements

- A) The Contractor shall conduct daily safety meetings throughout the period of fieldwork to discuss such topics as safety procedures when working near the existing highway, potential hazards, potential exposure to contaminants, and the proper use of shoring. All crew members must participate.
- B) The Contractor shall provide access to the site for personnel to conduct the work in a manner that does not jeopardize their safety, the convenience of the public, and safety of authorized visitors.
- C) All persons not trained in accordance with the requirements of Title 8 CCR Section 5192 or 1532.1 shall be prohibited from entering the exclusion zone.
- D) The Contractor shall comply with all Caltrans and OSHA regulations regarding necessary safety equipment and procedures. Contractor also agrees to adhere to any safety requirements established by the Caltrans District Safety Officer.
- E) The Contractor shall place safety coverings over open excavations, trenches, bore holes and other open units that are not under active work.

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29. Site Safety Plan/Lead Compliance Plan

- A) The Contractor shall develop a detailed site specific Health and Safety Plan (HSP) or Lead Compliance Plan (LCP), when work involves Aerially Deposited Lead (ADL) soil excavation activities) as appropriate for review and acceptance by the Caltrans Task Order Manager. The plan shall be completed as part of a site work plan or as a part of evaluating the potential work hazards and necessary safety precautions. The safety plan shall list protective measures required to guard the field investigation team, any other persons on site, and the general public from site-specific hazards. The plan shall conform to all State and Federal safety regulations, will be subject to review and approval by regulatory agencies, and may be amended as needed as work progresses. The plan shall be signed by a Certified Industrial Hygienist. The Site Safety Plan shall address the need for establishing a site perimeter to control access to the site.
- B) All field employees shall certify that they have read, understand, and agree to comply with the safety plan before the field investigation begins. No worker shall be allowed to participate in the field investigation unless he or she has signed the site specific safety plan. Field personnel will wear hard hats, safety glasses, approved safety vests and closed, steel toed safety shoes at all times when on site. The Hazardous Waste Contractor shall provide all necessary personal protective equipment and safety devices for Contractor's at no cost to Caltrans.
- C) Lead Compliance Plans shall cover the elements required in Title 8, CCR Section 1532.1 or the DTSC Variance as specified by the Caltrans Task Order Manager.
- D) Each site-specific safety plan shall include all of the following elements unless otherwise specified by the Caltrans District Hazardous Waste Coordinator:
 - 1) Identification of key personnel for the project, including:
 - 2) Specific assignment for the project
 - 3) Health and safety responsibilities
 - 4) The specific tasks to be performed and equipment to be used
 - 5) Job hazard analysis for each work assignment at the site including:
 - a) workers
 - b) nearby community
 - c) environmental receptors
 - d) air monitoring plan for project, if required, including:
 - e) ambient air quality
 - f) assessment of community exposure
 - g) assessment of worker exposure

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- E) Administrative and Engineering Controls and Work Practices to reduce/prevent risk to workers:
- 1) Personal protective equipment selected for the project and upgrade conditions
 - 2) Delineation of work zones (e.g., exclusion and decontamination) on site and decontamination procedures for personnel and equipment
 - 3) Listing of general safe work practices for on-site activities
 - 4) Description of security measures established for the site
 - 5) Hygiene and Housekeeping
 - 6) Emergency response plans established for the project, including:
 - a) on-site emergencies
 - b) off-site emergencies
 - c) access for emergency personnel and vehicles
 - d) nearby community protection
 - e) location and direction of emergency care
 - f) phone and communication plan
 - g) Worker training requirements for the project Medical surveillance program for field staff that complies with Title 8 CCR, Section 5192/1532.1 as appropriate.
- F) The Contractor shall follow all local, state, and federal requirements for Health and Safety. The HSP shall be consistent with:
- 1) NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985)
 - 2) EPA Order 1440.1 - Respiratory Protection;
 - 3) EPA Order 1440.3 – Health and Safety Requirements for Employees engaged in Field Activities:
 - 4) EPA Standard Operating Safety Guide (1984);
 - 5) OSHA regulations particularly in 29 CFR 1910 and 1926;
 - 6) State and local regulations; and
 - 7) Other applicable EPA guidance and State regulations.

30. Site Safety Officer

- A) During site investigative and cleanup activities, a Site Safety Officer (SSO) shall be designated by the Contractor. The SSO shall be responsible for enforcing the Health and Safety Plan and/or Lead Compliance Plan. Caltrans may also designate a SSO

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for Caltrans employees performing construction activities. The Hazardous Waste Contractor's SSO shall cooperate fully with the Caltrans SSO.

- B) The Contractor's SSO or designated representative shall be present at all times that work is occurring on the site. The Contractor's SSO and Caltrans SSO must be familiar with hazardous material and waste laws and regulations in California and with California and Federal OSHA requirements. The SSO or his designated representative shall be available to accompany the Caltrans District Hazardous Waste Coordinator and/or his representatives and/or representatives of the applicable regulatory agencies while they are on site.
- C) The SSO shall direct the implementation and operation of the site specific Health and Safety Plan (HSP).
- D) The SSO shall enforce compliance with the HSP by all persons while they are within the site perimeter.
- E) The SSO shall secure the site, keep workers and the public a safe distance away from the work area, determine an Exclusion Zone and mark the bounds appropriately, insure that any dust and/or vapors are suppressed, set up air monitoring stations and perform air monitoring, monitor for explosiveness, and take other actions as necessary to secure the site.

31. Health and Safety Plan

The Contractor shall conform to all applicable occupational health and safety standards, rules, and regulations established by the State of California and the U.S. Government as applicable. Noncompliance by the Contractor with the site health and safety plan is grounds for a suspension of the work or termination of the Contractor for default per Ex. D, section 1 of the Agreement. The Contractor shall provide safe access to the work site for the Caltrans District Hazardous waste Coordinator and representatives of the applicable local and/or state regulatory agencies during normal field investigation work hours. Designated observation areas outside the work zone shall be established for these site visits. Such inspection tours shall be arranged in advance with the Site Safety Officer by the Caltrans District Hazardous Waste Coordinator.

32. Personnel, Coordination and Meetings

- A) Effective communication between the Contractor and Caltrans is essential to successful completion of the contract. Toward this end, Caltrans shall designate a Caltrans District Hazardous Waste Coordinator who will have overall responsibility to monitor and evaluate the work of the Contractor. The Caltrans District Hazardous Waste Coordinator may also choose to appoint a designee to carry out some of the Caltrans District Hazardous Waste Coordinator's responsibilities. Normally, the Caltrans District Hazardous Waste Coordinator will be the Resident Engineer on the transportation project where hazardous waste/material and/or subsurface contamination have been found.

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- B) The Contractor shall designate a Project Manager to manage each specific Work Request and who has overall responsibility for all work performed under the contract and as directed by the Caltrans District Hazardous Waste Coordinator. Unless otherwise specified in the Task Order, the Contractor's Project Manager shall be a registered professional in the State of California (i.e., Professional Geologist, Certified Engineering Geologist, or Professional Engineer). The Contractor shall be represented at all times while the fieldwork is in progress by experienced senior staff level personnel who are competent in the area of hazardous material/waste investigation and mitigation.
- C) During fieldwork, the Contractor will maintain daily contact with the Caltrans District Hazardous Waste Coordinator or his designee and, as necessary, with the District Contract Manager or designee. To meet this objective, the Contractor shall designate a representative possessing sufficient authority and adequate time to make decisions and maintain the desired liaison.
- D) To ensure complete understanding of project objectives, and schedule the Contractor shall be available to meet with the Caltrans Task Order Manager or his/her representative within one business day of accepting a Task Order.
- E) Caltrans will provide sufficient staff assistance to ensure good coordination and communication with the Contractor. The designated Caltrans representatives will perform liaison functions necessary to administer the contract and will be available to provide direction where problems are identified in meeting work objectives.
- F) Should problems arise during the course of the fieldwork, the Contractor shall notify the Caltrans District Hazardous Waste Coordinator. Caltrans may suspend all work and work shall resume only upon Caltrans issuing a notice to proceed. Notice to suspend or proceed with work may be given orally by the Caltrans District Hazardous Waste Coordinator or designee followed by written notification.
- G) The Contractor shall keep a written record of all contacts with individuals or groups who express interest or concerns regarding the work. A written report of these contacts shall be submitted by the Contractor to the Caltrans District Hazardous Waste Coordinator at the conclusion of the fieldwork, and, if applicable, at the conclusion of the contract or at the request of the Caltrans District Hazardous Waste Coordinator.
- H) At its discretion Caltrans may review and inspect the work activities at all locations and at all reasonable times during the performance period of this contract including review and inspection on a daily basis. Where the District Hazardous Waste Coordinator or designee is trained according to the requirements of Title 8 CCR, Section 5192/1532.1, the Contractor shall provide them with safe access to the work site during the field investigation, and shall furnish them with adequate safety equipment for ascertaining that the materials and workmanship are in accordance with the requirements and intentions of this contract. All work done and all materials

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furnished shall be subject to inspection and approval by the Caltrans District Hazardous Waste Coordinator.

- I) The Caltrans District Hazardous Waste Coordinator will serve in a liaison function between the Contractor and Caltrans. If the Contractor determines a need to change the approved work, the Contractor shall bring this to the attention of the Caltrans District Hazardous Waste Coordinator who in turn shall bring significant proposed changes to the attention of the District Contract Manager. The Contractor will not be allowed to deviate from the approved work plan prepared by the Contractor without consultation with Caltrans and approval by the Caltrans District Hazardous Waste Coordinator.
- J) The Contractor agrees that the Caltrans District Hazardous Waste Coordinator will have full access to project information. The Contractor will honor reasonable requests from the Caltrans District Hazardous Waste Coordinator for information pertaining to the technical aspects of the project.
- K) The Contractor shall treat information obtained from the services provided to Caltrans as confidential and shall not discuss the project with media representatives, regulatory agencies or other persons without Caltrans written permission. The Contractor shall not issue any news releases or public relations item of any nature whatsoever regarding work performed or to be performed under this Agreement, without prior review of the contents thereof by Caltrans and receipt of Caltrans written permission to disclose the information. The Contractor's and subcontractor's staff assigned to a Task Order may be required to sign individual confidentiality agreements.
- L) The Caltrans District Hazardous Waste Coordinator may consult with or be advised by representatives of an applicable federal, local, or State regulatory agencies.

33. General Requirements for Reports

- A) For task orders of three months or more in duration, the Contractor shall submit written progress reports at least once a month, to allow the Caltrans District Task Order Manager to determine if the Contractor is performing to expectations and is on schedule, to provide communication of interim findings, and to afford occasions for airing difficulties or special problems encountered so that remedies can be developed.
- B) When required, four copies of the Health and Safety Plan and four (4) copies of the Work Plan shall be submitted to the Caltrans Task Order Manager, unless otherwise required by Task Order.
- C) Unless otherwise required, two copies of the draft final report shall be submitted to the Caltrans Task Order Manager for review and comment. The draft report shall be complete and include all figures and tables, and shall go through the Contractor's Quality Assurance/Quality Control (QA/QC) procedures. The draft final report shall be reviewed by the Contractor's Project Manager before submittal to Caltrans. The report shall be modified to address all comments received by Caltrans and submitted in final form within the time specified in the Task Order. The final report shall be

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signed and stamped by the Contractor's Project Manager and/or project engineering geologist/hydro-geologist. Five (5) copies of the final report shall be submitted unless otherwise specified by the Caltrans Task Order Manager. Additional copies of reports will be paid as extra work. If the comments require additional field work, a longer response period may be granted to the Contractor to compile the report at the discretion of the Caltrans Task Order Manager.

- D) All reports are to be printed double-sided and on post-consumer recycled paper.
- E) Costs for clerical and administrative support, photocopying, report binding, draft and final reporting, completion of work logs, postage, and administrative overhead are included in the bid item prices. No additional costs may be charged for those items of work.
- F) Table of Contents
 - 1) Investigative Summary: This section shall present and summarize the findings of the investigation.
 - 2) Project Description: This section shall provide a brief description of the project for which the work was undertaken.
 - 3) Introduction: This section shall include the general objectives of the fieldwork, a brief chronology of site activities, previous site work, and items of work completed.
 - 4) Investigative or Field Methods: This section shall describe the field methods used for the investigation or other field activity and any deviations from the Work Plan.
 - 5) Results and Field Observations: This section shall include a discussion of the site geology, hydro geologic conditions observed during the investigation, and chemical test results (as described in Laboratory Test Reports). The data shall be presented in clear and concise form and be summarized in table form, including previous work or results.

34. Types of Reports

- A) The Caltrans Task Order Manager will request that the Contractor prepare written reports of varying depth and complexity, depending on an assessment of the project circumstance and the stage of the work. The Caltrans Task Order Manager will specify if reports may be in letter form, addressed to the Caltrans Task Order Manager. The Contractor if required by the Caltrans Contract Manger shall prepare more formal and detailed reports. The Caltrans Task Order Manager will review reports for completeness, accuracy, and adequacy and may require the Contractor to supply additional information and analyses. The Contractor may be required to prepare any or all of the following types of reports:

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1) Work Plans (WP)

Work plans shall describe the methods intended to accomplish the work specified in the Task Order. The work plan shall include maps of proposed sampling locations, sampling and analysis methodology, work scheduling, plans for accomplishing the work and for disposing of drill cuttings and any other wastes.

2) Health and Safety Plans (HSP): Health and Safety Plan requirements are described in Exhibit A, item 15 above.

3) Letter Reports

a) Letter reports shall include a summary of all field activities and observations, boring logs if drilling was conducted, number of boreholes drilled, type and number of samples collected with sample identifier, type of equipment used, a summary of the laboratory results and conclusions from the work. The following shall be included as appendices, as appropriate to the investigation or as specified by the Caltrans District Hazardous Waste Coordinator:

- i. Maps.
- ii. Boring Logs.
- iii. Laboratory reports (in tabular form).
- iv. Chain of Custody forms.

4) Site investigation and Field Activity Reports. The following are standard report requirements for site investigations and field activities such as tank removals or waste removals. Specific information requirements are provided for certain types of investigative work. The Caltrans Task Order Manager may reduce the level of reporting required in an individual Work Request. The site investigation report shall include the following items in the following format unless otherwise specified by the Caltrans Task Order Manager:

- a) Title sheet identifying Task Order, project name and Expenditure Authorization (EA), project location, contract number, Contractor name, name of author and date prepared.
- b) Signature page with signature, title and registration number of the geologist or engineering geologist, licensed in the State of California, who is the Contractor's Project Manager for the investigation.

35. General Report Content and Data Evaluation Methodology

A) Data Evaluation and Discussion: Site investigation or field activity results shall be evaluated in the report. Data evaluation shall include:

1) Maps showing the site, feature locations, boring and well locations, vertical and horizontal extent of contamination, contour maps of contaminant concentrations, hydraulic gradient. All maps shall have title blocks, scale and north arrow. Map scale shall be approved by the Caltrans District Hazardous Waste Coordinator

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- 2) Cross sections showing subsurface geologic and hydrologic conditions, sample results and estimated extent of contamination. An estimate of volume of contaminated soil and ground water present must be given along with assumptions and calculations used.
 - 3) Charts showing contamination levels of soil and/or ground water in specific, identifiable locations;
 - 4) Color photographs that document the site surroundings, the investigation area with flagged boring locations, and any significant geological features;
 - 5) Additional photographs that document the progress of the investigation, or any significant areas or activities, shall be by request of the Caltrans District Hazardous Waste Coordinator or specified in the Work Request;
 - 6) Statistical analysis of sample results estimating trends, contaminant distribution and average concentration;
 - 7) All maps, cross sections, and graphs shall be backed up by data and shall be included in the reports; and
 - 8) Summary of laboratory results.
 - 9) Conclusions and Recommendations: This section shall describe the type, extent, and estimated amount of contamination. Recommendations for any necessary additional work to characterize the site or make ready for construction and the cost of that work shall be included in this section. Basic information on remedial options and their estimated cost shall be included if specified in the Task Order.
 - 10) Identification of subcontractors used and staff performing work, including resumes, if not provided in the bid proposal.
- B) Appendices that contain all data used to support the report, such as:
- 1) Well and boring logs for both existing and new wells and soil borings. This includes all wells that can influence hydrogeologic conditions of the site, not just wells used to develop cross sections.
 - 2) Copies of well permits from the State Department of Water Resources, county regulatory agencies or other local or regional agency
 - 3) Laboratory analysis of each sample tested. Laboratory reports must include Chain of Custody forms that contain required EPA and Department of Public Health (DPH) information (See Laboratory Test Report section for reporting requirements).
- C) Lead Investigation Data Evaluation Report
- 1) The aerially deposited lead (ADL) data is nonparametric. The Contractor shall use either arcsine transformation and/or the Nonparametric Bootstrap Method to evaluate aerially deposited lead survey data at 90% and 95% upper confidence level (UCL).

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- 2) The presence of non-detects in the lead analysis data can strongly skew sample data toward low values. Classical statistical methods do not work properly in these cases. A natural log (ln(x)) transformation of the data allows calculation of upper confidence intervals for the mean. A histogram of the data set shall be developed to determine if the data are skewed and if transformation is necessary. If a data set is skewed, the data will be transformed using an ln(x) transformation and a new histogram developed to document the transformation. Please note: analytical results for total and soluble lead will have results below the method detection limits. Non-detect results should be numerically set at one half the detection limit and all results used in calculations.
- 3) Total lead levels are often below 50mg/kg and a follow up WET analysis will not be necessary. Consequently, a project may have, for example, 30 total lead analyses and five (5) WET analysis. Of the five (5) WET analysis, three (3) may have lead levels which exceed the regulatory limit for hazardous waste of 5 mg/l. In this case, three (3) out of 30 samples would not necessarily make the sediment next to the road a hazardous waste. On the other hand, a single very high lead level out of many samples may not be representative of the concentrations of lead in sediment at a project and would not be considered representative of the waste. Good judgment and documentation of the data and how it is used is very important. In general, all sample data should be considered and used when evaluating lead levels and determining if a material is hazardous, triggers the Variance, and consequently which cover controls are necessary.
- 4) If the data is statistically analyzed using ProUCL from EPA, the version and results shall be noted in the report.

D) Correlation of Total and Soluble Lead

- 1) Total lead and soluble lead (California WET) are bivariate data with a linear structure. Generally, the plot of the data shows basically a straight line trend except for some randomness. A lack of correlation usually means that the total and soluble lead samples were not pulled from the same sample aliquot. The correlation coefficient can be used as a quality check of the data. A correlation/regression analysis shall be performed on the data comparing soluble lead levels to total lead levels.
- 2) The following correlation coefficient formula (or equivalent) shall be used:
$$r = \frac{(\overline{XY}) - X \times Y}{S_x \times S_y} \times \frac{n}{n - 1}$$
- 3) Where: \overline{XY} = the average of products or the average of each soluble lead level multiplied by the matching total lead level.
- 4) X = the soluble lead average.

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- 5) Y = the total lead average.
- 6) S_x = the standard deviation of soluble lead.
- 7) S_y = the standard deviation of total lead.
- 8) n = the number of samples.
- E) If the analysis indicates a correlation coefficient below 0.8, this must be explained in the report or the sample procedures adjusted and the sample reanalyzed for both total and soluble lead. The best time to look at this data is at the lab where problems can be resolved quickly and within the task order schedule.
- F) For the linear regression analysis the soluble levels vs. the total levels will be graphed and a best fit line plotted for the data. A least squares method shall be used to estimate a straight line. This estimate is easily (and routinely) done by computer. The formula is
$$t = \frac{\text{correlation} \times (\text{standard deviation of the total lead})}{(\text{standard deviation of the soluble lead})}$$
- G) The slope of the line = (correlation) x (standard deviation of the total lead)/(standard deviation of the soluble lead).
- H) The intercept of the line = (average total lead concentration) - (line slope) x (average soluble lead level).
- I) Once the slope and the intercept are found, the line itself is known and can be drawn in the bivariate plot of the data. This graph can be used to approximate the expected solubility concentration from the average total concentrations.
- J) If the data is statistically analyzed using ProUCL from EPA the version and results shall be noted in the report.
- K) The lead in soil investigation report shall include the following items in the following format:
 - 1) Title sheet identifying task order number, Project Identification number (ID), project name, project locations, contract number, Contractor name, name of author and the date prepared.
 - 2) Signature page with signature, title and registration number of the geologist, or engineering geologist, licensed in the State of California, who is the Contractor's Project Manager for the investigation.
- L) Table of Contents:
 - Investigative Summary – This section shall present and summarize the findings of the investigation.
- M) Project Description – This section shall include the general objectives of the investigation, a short chronology of site activities, previous site work, and items of work completed for the investigation.
- N) Investigative methods - This section shall describe the field methods used for the investigation and any deviations from the Work Plan

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Investigative Results and Field observations - This section shall include a discussion of the sediment conditions observed during the investigation, and chemical tests results (as described in laboratory testing). The data shall be presented in clear concise form and summarized in table form, including previous work or results.

- O) Data Evaluation and Discussion - Site investigation results shall be evaluated in the report. Data evaluation shall include:
 - P) Maps showing the site, boring locations, total and soluble lead levels found in each boring.
 - Q) All maps shall have title blocks, scale and north arrow and should be drawn to scale sheets supplied by the Caltrans District Hazardous Waste Coordinator and shall have the Engineers stamp removed from the maps used in the report.
 - R) Tables of laboratory results showing total and soluble lead levels in soil samples in specific, identifiable locations. Extraction ratio for total vs. soluble.
 - S) Statistical evaluation, tables and graphs. The mean, median, standard deviation, and 90% and 95% (if required) upper confidence level (UCL) shall be calculated and histograms of the original data and transformations shall be supplied. The report shall include a graph showing the total versus soluble lead levels and a least squares regression line. The arcsine transformation and/or bootstrap method are allowed used to determine the confidence interval shall be referenced or reproduced in the report. The report shall include a determination of the concentration. The attachment shows the total and soluble lead concentrations that would be expected in each layer of soil depending on how the various levels of soil were segregated. The data shall be compared to Title 22 criteria and the DTSC Variance. The statistical results shall be clearly described in the text.
 - T) All maps, cross sections, and graphs shall be backed up by data and shall be included in the reports.
 - U) Conclusions and Recommendations - This section shall describe the type, extent, and estimated amount of contamination. Recommendations for material handling shall be presented based on DTSC Variance requirements and/or disposal requirement per the health and Safety Code or exceptions.
 - V) Identification of subcontractors used and staff performing work, including resumes, if not provided in the bid proposal.
 - W) Laboratory analysis of each sample tested. Laboratory reports must include Chain of Custody forms that contain required EPA and Department of Public Health (DPH) information (See Laboratory Test Report section for reporting requirements).
 - X) Trenching Reports

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- 1) When trenching activities are included in the Task Order, the following categories of information shall be included in the report, in addition to the general site investigation report requirements:
 - 2) A detailed description of the subsurface conditions with color photographs and sketches to illustrate subsurface features.
 - 3) A description of the field activities.
 - 4) A summary table of OVA (organic vapor analyzer) and PID (photo ionization detector) readings, when they were taken, and summary tables of the sample results.
 - 5) A map showing the trench location and the sample locations within the trench (the map shall show other relevant site features, boring and monitoring well locations).
 - 6) Trench log. An analysis of the subsurface conditions found in the trench and how the results relate to conditions found in any other phase of the investigation.
- Y) Laboratory Test Reports. Complete copies of all laboratory reports, including QA/QC summary reports, shall be placed in an appendix of the field report. Chromatographs shall be provided with the laboratory reports at no additional cost to Caltrans. The Contractor shall keep the chromatographs on file and provide to Caltrans upon request. Laboratory test reports shall contain all of the following information:
- 1) Name of analytical laboratory.
 - 2) Address of laboratory.
 - 3) Telephone number of laboratory.
 - 4) Laboratory number for each sample reported. Contractor's number for each sample reported, if applicable.
 - 5) Date sample(s) collected.
 - 6) Date sample(s) received by laboratory.
 - 7) Date of laboratory testing.
 - 8) Brief sample description (i.e. soil, water, sludge, etc.).
 - 9) Specific test method.
 - 10) Extraction method utilized (if not unique to test method).
 - 11) Test result for each sample and method (reported in mg/kg or mg/liter as appropriate).
 - 12) Limit of detection for each test method (reported in mg/kg or mg/liter as appropriate).
 - 13) Written explanation of higher detection limits, laboratory contaminants, or other unusual results.

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14) Samples which failed QA/QC procedures and why.

15) Date of test report.

16) Signature and title of the director of the laboratory.

Z) Removal Action Plans/Remedial Actions Option Reports

- 1) This report may be either a **section** of a field report or a separate report, as requested by the Caltrans Task Order Manager. This report includes a review of one to three potentially feasible remedial actions and associated costs. The number of options addressed shall be agreed to by the Caltrans Task Order Manager. The review must be of sufficient depth and breadth for Caltrans to make an informed decision on the most appropriate remedial action for a specific hazardous waste or container problem at a specific site. The report shall include:
 - 2) An analysis of the no action alternative and at least two other remedial alternatives. Each alternate analysis should address: time, operation and maintenance requirements, risks to health and environment, cost-effectiveness, level of cleanup, the physical limitations of the site, and the impact of the cleanup methods on the continuing construction activities and Caltrans use.
 - 3) Effectiveness of the treatment on the material in question and the applicability of the alternative relative to the project life.
 - 4) Reliability of the alternatives in terms of demonstrated effectiveness and the operation and maintenance requirements.
 - 5) Ability to implement the alternative given the site conditions, location and time frame.
 - 6) Potential threats to the public and site worker safety by the treatment.

AA) Waste Disposal Reports

Reports of waste disposal shall cover the following, as they pertain to soil, surface water, ground water, debris, drums, and asbestos pipe removal and disposal:

- 1) Sample analysis, locations, and results for all confirmation sampling.
- 2) Locations of removal and volume removed.
- 3) Dates of actions.
- 4) Deviations from the work plan.
- 5) Disposal location and copy of the manifest.
- 6) Name and address of companies participating in work.
- 7) Figures and maps as necessary to document above activities.

36. Traffic Control

Traffic control (barricades, portable flashing beacons, and detours), when necessary to accomplish the contract work, will be the responsibility of Caltrans unless otherwise specified in the Task Order. The Contractor must request traffic control in advance of

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work if it is deemed necessary for these operations. Limited work hours, night work or weekend work may be necessitated by the closure schedule that is approved by Caltrans for on State Freeways or highways. For work outside of Caltrans right-of-way, the Contractor shall provide Traffic Control in coordination with the appropriate local jurisdiction and/or private owners.

37. Caltrans Services

- A) Caltrans will make available to the Contractor the following information, materials, and services:
- 1) Map of the site to be used in preparation of plans and reports.
 - 2) Copies of available borehole logs, if necessary.
 - 3) Necessary right of entry permission for any work on adjacent private property or that requires access through private property. The conditions of the right of entry agreement to the property will be explained to the Contractor prior to the start of work. The Contractor shall know and follow the terms and conditions of the right of entry agreement.
 - 4) The Caltrans District Hazardous Waste Coordinator or a designated representative will sign all Hazardous Waste Manifests for hazardous waste removed from the site. The Contractor shall not sign the Hazardous Waste Manifest as the generator.

38. The Caltrans District Hazardous Waste Coordinator or a designated representative shall obtain EPA identification numbers

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BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing and Payment

- A. For Task Orders satisfactorily rendered and approved by Caltrans Contract Manager, and upon receipt and approval of the invoices, Caltrans agrees to compensate the Contractor in accordance with the Bid Proposal, **Attachment 1** and this **Exhibit B**. Incomplete or disputed invoices shall be returned to the Contractor, unpaid, for correction.
- B. In compliance with the recent passage of the revised regulation (Title 49 CFR 26.37), the Disadvantaged Business Enterprises Utilization Report form (ADM-3069) is required, as specified, in this Agreement.
 - 1. The Contractor shall submit a Disadvantaged Business Enterprises Utilization Report (ADM-3069), Attachment 4, with each invoice. Also refer to Exhibit D, Special Terms and Conditions.
 - 2. Failure to provide the Disadvantaged Business Enterprises Utilization Report (ADM-3069) with the invoice will result in twenty-five percent (25%) of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to Contractor when a satisfactory Disadvantaged Business Enterprises Utilization Report (ADM-3069) form is submitted to Caltrans Contract Manager.
- B. Invoices shall be itemized in accordance with Bid Proposal, Attachment 1, and shall be signed and submitted in triplicate not more frequently than monthly in arrears of the service.
- C. Each invoice shall include:
 - 1) Agreement Number
 - 2) Dates of Service
 - 3) Location of Service
 - 4) Service Month
 - 5) Task Order Number
 - 6) Description of Task Order
 - 7) Attachment 1, Line Items and Quantities Provided.

Department of Transportation
(Program/Division/District) _____
Attn: ____ (Contact Manager) _____
(Street/P.O. Box) _____
(City, State, Zip) _____

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- C. Extra Work: As specified in Exhibit A, Section 9, if additional services are required, the Contractor will be reimbursed per Attachment 1, Bid Proposal. All approved documentation must be attached to the invoices and must have the Caltrans Contract Manager's signed and dated approval.
- D. Both Federal and State prevailing wage requirements apply to this Agreement. Contractor shall ascertain which prevailing wage determination applies for each type of work performed. Where there is a conflict in State and Federal prevailing wage rates for the same work, Contractor shall pay the higher of the two rates.
- E. The Contractor shall submit a certified copy of all payroll records for verification by the Caltrans Contract Manager and/or Designee with each invoice. Delinquent or inadequate certified payrolls or other required documents will result in the withholding of payment until such documents are submitted by the Contractor.

2. Budget Contingency Clause

- A. It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of congressional or legislative appropriation of funds, for the mutual benefit of both parties in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made.
- B. This Agreement is valid and enforceable only if sufficient funds are made available to Caltrans by the United States Government or the California State Legislature for the purpose of this program. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms or funding of this Agreement in any manner.
- C. It is mutually agreed that if the Congress or the State Legislature does not appropriate sufficient funds for the program, this Agreement shall be amended to reflect any reduction in funds.
- D. Pursuant to Government Code (GC), Section 927.13, no late payment penalty shall accrue during any time period for which there is no Budget Act in effect, nor on any payment or refund that is the result of a federally mandated program or that is directly dependent upon the receipt of federal funds by a state agency.
- E. Caltrans has the option to terminate the Agreement under the 30-day termination clause or to amend the Agreement to reflect any reduction of funds.

3. Cost Limitation

- A. Total amount of this Agreement shall not exceed (amount of Agreement).
- B. It is understood and agreed that this total is an estimate and that Caltrans will pay only for those services actually rendered as authorized by the Agreement manager or his/her designee.

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4. Materials/Supplies

For work required under this Agreement, the Contractor's costs associated with the purchase and installation of materials/supplies are considered as a component of the Contractor's hourly rate for services that include wages, overhead, general and administrative expenses and profit. For materials/supplies purchased per Extra Conditions, Exhibit A, Section 9, the Contractor will be reimbursed for the actual cost of materials/supplies purchased to be used at the work site in performance of the Agreement (including applicable sales tax), without additional allowance for markup. Cost of materials/supplies are to be substantiated by a copy of the appropriately signed original invoice verifying the actual cost and delivery of the material/supplies to Caltrans.

5. Costs Included in Bid Rates

- A. The cost of employer payments to or on behalf of employees, subsistence, travel, compensation insurance premiums, unemployment contributions, social security taxes, contract bond premiums, and any other taxes or assessments INCLUDING SALES AND USE TAXES required by law or otherwise shall be included in the Agreement rates and no additional allowance will be made thereof, unless separate payment provision should specifically so provide.
- B. Contractors shall make travel and subsistence payments to each worker in compliance with Labor Code sections 1773.1 and 1773.9. Travel and subsistence requirements are available on the Department of Industrial Relations website at <http://www.dir.ca.gov/DLSR/PWD/>.

6. Payroll Records

- A. The Contractor and each Subcontractor shall comply with the following provisions. The Contractor shall be responsible for compliance by his/her subcontractors.
 - 1) Each Contractor and Subcontractor shall keep accurate payroll records and supporting documents as mandated by Section 1776 of the California Labor Code and as defined in Section 16000 of Title 8 of the California Code of Regulations, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor or Subcontractor in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
 - a) The information contained in the payroll record is true and correct.
 - b) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.
 - 2) The payroll records enumerated under paragraph (1) above shall be certified. The payrolls and records related to employee wages, fringe benefits, payroll tax and

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deductions shall be available for inspection and copying by Caltrans' representatives at all reasonable hours at the principal office of the Contractor.

- a) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.
 - b) A certified copy of all payroll records enumerated in paragraph (1) above, shall be made available for inspection or furnished upon request to a representative of Caltrans', the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations. Certified payrolls submitted to Caltrans, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards shall not be altered or obliterated by the Contractor.
 - c) The public shall not be given access to certified payroll records by the Contractor. The Contractor is required to forward any requests for certified payrolls to the Caltrans Contract Manager by both facsimile and regular mail on the business day following receipt of the request.
- 3) Each Contractor shall submit a certified copy of the records enumerated in paragraph (1) above, to the entity that requested the records within ten (10) days after receipt of a written request.
 - 4) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by Caltrans shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address and social security number. The name and address of the Contractor awarded the Agreement or performing the Agreement shall not be marked or obliterated.
 - 5) The Contractor shall inform Caltrans of the location of the records enumerated under paragraph (1) above, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
 - 6) The Contractor or Subcontractor shall have ten (10) days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph (1) above. In the event the Contractor or Subcontractor fails to comply within the ten-day period, he or she shall, as a penalty to Caltrans, forfeit one hundred dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Such penalties shall be withheld by Caltrans from payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.
- B. The penalties specified in paragraph 5 A. (6) above for noncompliance with the provisions of said Section 1776 will be deducted from any monies due or which may

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become due to the Contractor. Penalties assessed for failure to submit certified payrolls are forfeitures and not retention that will be returned to the Contractor.

- C. Payrolls shall contain the full name, address and social security number of each employee, the correct work classification (including apprentices, if applicable), rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. The employee's address and social security number need only appear on the first payroll on which his name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or employer's agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the Agreement. The "Statement of Compliance" shall be on forms furnished by Caltrans or on any form with identical wording. Any payroll that does not include the required "Statement of Compliance" will be deemed inadequate and unacceptable. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.
- D. The Contractor and each Subcontractor shall preserve their payroll records for a period of three (3) years from the date of completion of the Agreement.
- E. The Contractor shall submit a certified copy of all payroll records for verification by Caltrans' Contract Manager and/or Designee with each invoice. When progress payments are called for, the Contractor shall submit a certified copy of all payroll records for verification for the work completed to date with each invoice. Delinquent or inadequate certified payrolls or other required documents will result in the withholding of payment until such documents are submitted by the Contractor.
- F. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

7. Penalty

- A. The Contractor and any Subcontractor under the Contractor shall comply with Labor Code Sections 1774 and 1775. In accordance with said Section 1775, the Contractor shall forfeit, as a penalty to Caltrans, not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for such work or craft in which such worker is employed for any public work done under the contract by him or her, or by any subcontractor under him/her, in violation of the provisions of the Labor Code and, in particular, Labor Code Sections 1775 to 1780, inclusively.
- B. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or Subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or Subcontractor in meeting his or her prevailing wage obligations, or a Contractor's willful failure to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or Subcontractor had knowledge of the obligations under

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the Labor Code. Any contractor that executes and receives a copy of this Agreement is deemed to have knowledge of his or her obligations regarding the Labor Code's prevailing wage requirements. In addition to the penalty and pursuant to Labor Code Section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or Subcontractor.

- C. If a worker employed by a Subcontractor on a public works project is not paid the general prevailing per diem wages by the Subcontractor, the prime Contractor of the project is not liable for any penalties described above unless the prime Contractor had knowledge of that failure of the Subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime Contractor fails to comply with all of the following requirements:
- 1.) The Agreement executed between the Contractor and the Subcontractor for the performance of work on the public works project shall include a copy of the provisions of Sections 1771, 1775, 1775.5, 1776, 1813 and 1815 of the Labor Code.
 - 2.) The Contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the Subcontractor to the employees by periodic review of the certified payroll records of the Subcontractor.
 - 3.) Upon becoming aware of the failure of the Subcontractor to pay his or her workers the specific prevailing rate of wage, the Contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited, to retaining sufficient funds due the Subcontractor for work performed on the public works project.
 - 4.) Prior to making final payment to the Subcontractor for work performed on the public works project, the Contractor shall obtain an affidavit signed under penalty of perjury for the Subcontractor that the Subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.
- D. Pursuant to Section 1775 of the Labor Code, Caltrans shall notify the Contractor on a public works project within 15 days of receipt of a complaint that a Subcontractor has failed to pay workers the general prevailing rate of per diem wages.
- E. If Caltrans determines that employees of a Subcontractor were not paid the general prevailing rate of per diem wages and if Caltrans did not retain sufficient money under the contract to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the Contractor shall withhold an amount of moneys due the Subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by Caltrans.
- F. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

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8. State General Prevailing Wage Rates

- A. The Contractor agrees to comply with all of the applicable provisions of the Labor Code including, those provisions requiring the payment of not less than the general prevailing rate of wages. The Contractor further agrees to the penalties and forfeitures provided in said Code in the event a violation of any of the provisions occurs in the execution of this Agreement.
- B. Pursuant to Section 1771.5 of the Labor Code, not less than the general prevailing wage rate of per diem wages and the general prevailing rate of per diem wages for holiday and overtime work for work of a similar character in the county in which the work is to be performed shall be paid to all workers employed on this Agreement, if this Agreement is for:
 - 1.) More than \$25,000 for public works construction or,
 - 2.) More than \$15,000 for the alteration, demolition, installation, repair, or maintenance of public works.
- C. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

9. State Prevailing Wage Rate Determinations

- A. The General Prevailing Wage Rate Determinations applicable to the project are available and on file with Caltrans' Regional/District Labor Compliance Office. These wage rate determinations are made a specific part of this contract by reference pursuant to Labor Code Section 1773.2. Any special wage rate determinations applicable to this project are attached.
- B. General Prevailing Wage Rate Determinations applicable to this project may also be obtained from the Department of Industrial Relations Internet site at:
<http://www.dir.ca.gov/>
- C. After award of the Agreement, and prior to commencing work, all applicable General Prevailing Wage Rate Determinations are to be obtained by the Contractor from Caltrans' District/Regional Labor Compliance Officer. These wage rate determinations are to be posted by the Contractor at the job site in accordance with Section 1773.2 of the California Labor Code.
- D. Questions pertaining to predetermined wage rates should be directed to Caltrans Regional or District Labor Compliance Office. A list of local Labor Compliance Offices is attached as Attachment 5.

10. Federal Prevailing Wage

- A. The work herein proposed will be financed in whole or in part with Federal funds; therefore, all of the statutes, rules, and regulations promulgated by the Federal government are applicable to work financed in whole or in part with Federal funds and will be applicable to work performed at a construction project site.

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B. Federal Requirements

1. Federal Requirements for Federal-Aid Construction Projects provisions shall apply to this Agreement and are made a part of the Agreement.

C. The current Federal Prevailing Wage Determinations issued under the Davis-Bacon and related Acts shall apply to this Agreement and are made a part of the Agreement.

1. When prevailing wage rates apply, the Consultant must submit, with each invoice, a certified copy of the payroll for compliance verification. Invoice payment will not be made until the payroll has been verified and the invoice approved by the Caltrans Contract Manager.

2. If there is any conflict between the State Prevailing wages and the Federal Prevailing Wages, the higher rate shall be paid.

3. Any subcontract entered into as result of this Agreement shall contain all of the provisions of this Exhibit.

11. Hours of Labor

A. Eight (8) hours labor constitutes a legal day's work. The Contractor shall forfeit, as a penalty to the State of California, twenty-five dollars (\$25.00) for each worker employed in the execution of the Agreement by the Contractor or any Subcontractor under the Contractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code, and in particular Sections 1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and forty (40) hours in any week, at not less than one and one-half times the basic rate of pay, as provided in Section 1815.

B. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

12. Employment of Apprentices

A. Where either the prime contract or the subcontract exceeds \$30,000, the Contractor and any subcontractors under him or her shall comply with all applicable requirements of Labor Code sections 1777.5, 1777.6 and 1777.7 in the employment of apprentices.

B. Contractors and subcontractors are required to comply with all Labor Code requirements regarding the employment of apprentices, including mandatory ratios of journey level to apprentice workers. Prior to commencement of work, Contractors and subcontractors are advised to contact the State Division of Apprenticeship Standards, P. O. Box 420603, San Francisco, California 94142-0603, or one of its branch offices, for additional information regarding the employment of apprentices and for the specific journey-to-apprentice ratios for the contract work. The prime Contractor is responsible

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for all subcontractors' compliance with these requirements Penalties are specified in Labor Code Section 1777.7.

- C. Any subcontract entered into as a result of this contract shall contain all of the provisions of this article.

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SPECIAL TERMS AND CONDITIONS

1. Settlement of Disputes

- A. Any dispute concerning a question of fact arising under this Agreement that is not disposed of by Agreement shall be decided by the Caltrans Contract Officer, who may consider any written or verbal evidence submitted by the Contractor. The decision of the Caltrans Contract Officer, issued in writing, shall be Caltrans' final decision on the dispute.
- B. Neither the pendency of a dispute nor its consideration by the Caltrans Contract Officer will excuse the Contractor from full and timely performance in accordance with the terms of the Agreement.

2. Termination

- A. If, after award and execution of the Agreement, the Contractor's performance is unsatisfactory, the Agreement may be terminated for default. Additionally, the Contractor may be liable to Caltrans for damages including the difference between the Contractor's original bid price and the actual cost of performing the work by another Contractor. Default is defined as the Contractor failing to perform services required by the Agreement in a satisfactory manner.
- B. Caltrans reserves the right to terminate this Agreement without cause upon thirty (30) days written notice to the Contractor or immediately in the event of default or material breach by the Contractor.
- C. Caltrans may terminate this Agreement immediately for good cause. The term "good cause" may be defined as "impossibility of performance" or "frustration of purpose," but does not include material breach, default, or termination without cause. In this instance, the Agreement termination shall be effective as of the date indicated on Caltrans' notification to the Contractor.
- D. In the event that the total Agreement amount is expended prior to the expiration date, Caltrans may, at its discretion, terminate this Agreement with 30 days notice to Contractor.

3. Retention of Records/Audits

- A. For the purpose of determining compliance with GC, Section 8546.7, the Contractor and Subcontractors shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The State, the State Auditor, FHWA, or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of

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the Contractor that are pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

- B. Any subcontract entered into as a result of this Agreement shall contain all the provisions of this clause.

4. Subcontractors

- A. Nothing contained in this Agreement or otherwise, shall create any contractual relation between Caltrans and any subcontractors, and no subcontract shall relieve the Contractor of its responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to Caltrans for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its subcontractors is an independent obligation from Caltrans' obligation to make payments to the Contractor. As a result, Caltrans shall have no obligation to pay or to enforce the payment of any moneys to any subcontractor.
- B. The contractor shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted except for subcontractors listed on (Attachment 2), Subcontracting Provisions/List.
- C. Any subcontract in excess of \$25,000, entered into as a result of this Agreement, shall contain all the provisions stipulated in this Agreement to be applicable to subcontractors.
- D. Contractor shall pay its subcontractors within ten (10) calendar days from receipt of each payment made to the Contractor by Caltrans.
- E. Any substitution of Subcontractors shall comply with the requirements of Public Contract Code Section 4100 et seq., and must be approved in writing by the Caltrans Contract Manager in advance of assigning work to a substitute Subcontractor.

5. Employment of Undocumented Aliens

By signing this contract, the contractor swears or affirms that it has not, in the preceding five years, been convicted of violating a state or federal law respecting the employment of undocumented aliens.

6. Bonds (Task Order)

Prior to commencement of work under this Task Order, the Contractor shall submit a Payment Bond for 100% of the Task Order, if the Task Order is over \$25,000. The Payment Bond is due prior to the start date of the Task Order. No work may commence without receipt of a valid Payment Bond as noted herein.

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7. DBE Information and Contract Goal Requirement for DBE Participation

- A. This Agreement is subject to Title 49, Code of Federal Regulations, Part 26 (49 CFR 26), entitled "Participation by Disadvantaged Business Enterprises (DBEs) in Department of Transportation Financial Assistance Programs," in the award and administration of federally assisted Agreements. The regulations in their entirety are incorporated by reference and made part of this Agreement as if attached hereto.
- B. A DBE is a firm which meets the definition of a DBE as specified in 49 CFR 26. Only the participation of certified DBEs will count toward any Agreement goal. DBE participation will count toward Caltrans' federally mandated overall annual DBE goal. In order to ascertain whether its overall annual DBE goal is being achieved, Caltrans tracks DBE participation on all federal-aid contracts.
- C. The certified DBE participation contract goal for this Agreement is twenty-one percent (21). Participation by DBE prime and Subcontractors shall be in accordance with the information contained in the Disadvantaged Business Enterprise (DBE) Information form ADM-0227f, attached hereto and incorporated as part of this Agreement.
- D. Non-compliance by Contractor or Subcontractor(s) with the requirements of the regulations is a material breach of this Agreement and may result in termination of the Agreement or other such appropriate remedy for a breach of this Agreement, as Caltrans deems appropriate.
- E. Contractor or subcontractor shall not discriminate on the basis of race color, national origin or sex in the performance of this Agreement. Each subcontract signed by and between Contractor and Subcontractor(s) in the performance of this Agreement must include this assurance.

8. Performance of DBE Contractors, and other DBE Subcontractors/Suppliers

- A. A DBE performs a Commercially Useful Function (CUF) when it is responsible for execution of the work of the Agreement and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible for materials and supplies used on the Agreement, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a CUF, evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Agreement is commensurate with the work it is actually performing, and other relevant factors.
- B. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, Agreement, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an

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extra participant, examine similar transactions, particularly those in which DBEs do not participate.

- C. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its Agreement with its own work force, or the DBE subcontracts a greater portion of the work of the Agreement than would be expected on the basis of normal industry practice for the type of work involved, presume that it is not performing a CUF.
- D. DBE subcontractors shall perform the work and supply the materials which they have listed in their response to the Agreement award requirements specified in the form ADM 0227F, attached, unless Contractor has received prior written authorization to perform the work with other forces or to obtain the materials from other sources as set forth in the Section 13 below entitled, "DBE Substitution".
- E. Contractor shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed DBE or by other forces (including those of Contractor) pursuant to prior written authorization of the Caltrans Contract Manager.

9. Exclusion of Retention

- A. In conformance with 49 CFR 26.29 (b) (1), the retention of proceeds required by Public Contract Code (PCC), Section 10261 shall not apply.
- B. In conformance with Public Contract Code (PCC) Section 7200 (b), in subcontracts between Contractor and a Subcontractor and in subcontracts between a Subcontractor and any Subcontractor thereunder, retention proceeds shall not be withheld, and the exceptions provided in PCC Section 7200 (c), shall not apply. At the option of Contractor, Subcontractor(s) may be required to furnish payment and performance bonds issued by an admitted surety insurer.
- C. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this section.

10. Payment to DBE and Non-DBE Subcontractor(s)

- A. Contractor shall pay its DBE Subcontractor(s) and non-DBE Subcontractor(s) within ten (10) calendar days from receipt of each payment made to Contractor by the State.
- B. Prior to the fifteenth of each month, Contractor shall submit documentation to Caltrans Contract Manager showing the amount paid to DBE trucking companies listed in Contractor's DBE information. This monthly documentation shall indicate the portion of the revenue paid to DBE trucking companies, which is claimed toward DBE participation. Contractor shall also obtain and submit documentation to Caltrans Contract Manager showing the amount paid by DBE trucking companies to all firms, including owner-operators, for the leasing of trucks. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The records must confirm that amount of

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credit claimed toward DBE participation conforms to the requirements of Section 13 below entitled, "DBE Substitutions."

- C. Contractor shall also submit to Caltrans Contract Manager documentation showing the truck number, name of owner, California Highway Patrol CA number and if applicable, the DBE certification number of the truck owner for all trucks used during that month for which DBE participation will be claimed. This documentation shall be submitted on the Monthly DBE Trucking Verification form provided to Contractor by Caltrans Contract Manager.
- D. Contractor shall return all moneys withheld in retention from a Subcontractor within thirty (30) days after receiving payment for work satisfactorily completed, even if other Agreement work is not completed and has not been accepted in conformance with the terms of the Agreement. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to Contractor or Subcontractor in the event of a dispute involving late payment or non-payment to Contractor or deficient subcontract performance or noncompliance by a Subcontractor.

11. DBE Records

- A. Contractor shall maintain records of all subcontracts entered into with certified DBE Subcontractor(s) and records of materiel purchased from certified DBE supplier(s). The records shall show the name and business address of each DBE Subcontractor or vendor and the total dollar amount actually paid each DBE Subcontractor or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE (prime) Contractor shall also show the date of work performed by its own forces along with the corresponding dollar value of the work.
- B. Contractor shall prepare and submit the Disadvantaged Business Enterprises Utilization Report (ADM-3069) form (Attachment 4) to the Caltrans Contract Manager with every invoice (refer to Exhibit B, Budget Detail and Payment Provisions).

12. DBE Substitutions

- A. Contractor shall not substitute or add a subcontractor, supplier or, if applicable, a trucking company, listed in the original bid/proposal without the prior written approval of the Caltrans Contract Manager. This includes work that a prime contractor can perform with its own forces, or with a non-DBE firm, or another DBE firm.
- B. Prior to the substitution request, the prime contractor must notify the DBE, in writing, of the intent to substitute allowing for five days of response time in opposition of the rejection.
- C. The prime contractor must have good cause in which to substitute the DBE firm. A good cause includes:

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- 1) The DBE fails or refused to execute a written contract.
 - 2) The DBE fails or refuses to perform the work consistent with normal industry standards.
 - 3) The DBE fails or refuses to meet the prime contractor's nondiscriminatory bond requirements.
 - 4) The DBE becomes bankrupt or has credit unworthiness.
 - 5) The DBE is ineligible to work because of suspension and debarment.
 - 6) It has been determined that the DBE is not a responsible contractor.
 - 7) The DBE voluntarily withdraws, with written notification, from the contract.
 - 8) The DBE is ineligible to receive credit for the type of work required.
 - 9) The DBE owner dies or becomes disabled resulting in the inability to perform the work on the contract.
 - 10) Or other documented compelling reason.
- D. The Contractor must make an adequate GFE to find another certified DBE Subcontractor to substitute for the original DBE. The GFE shall be directed at finding another DBE to perform at least the same amount of work under the Agreement as the DBE that was substituted to the extent needed to meet the established contract goal for DBE participation.
- E. Noncompliance by Contractor with the requirements of this section is considered a material breach of this Agreement and may result in termination of the Agreement or other such appropriate remedies for a breach of this Agreement as Caltrans deems appropriate.
- F. The requirement that DBEs must be certified by the bid opening date does not apply to DBE substitutions after award of the Agreement. DBEs substituted after award must be certified at the time of the substitution.
- G. At a minimum, Contractor's substitution request to Caltrans Contract Manager must include a:
- 1) Written explanation of the substitution reason; and if applicable, Contractor must also include the reason a non-DBE Subcontractor is proposed for use.
 - 2) Written description of the substitute business enterprise, include its business status, DBE certification number, and status as a sole proprietorship, partnership, corporation, or other entity.
 - 3) Written notice detailing a clearly defined portion of the work identified both as a task and as a percentage share/dollar amount of the overall Agreement that the substitute firm will perform.

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- H. Prior to the approval of Contractor's substitution request, Caltrans Contract Manager must give written notice to the Subcontractor being substituted by Contractor. A copy of the notice sent by Caltrans Contract Manager must be sent to the Division of Procurement and Contracts (DPAC). The notice must do all of the following:
- 1) Give the reason Contractor is requesting substitution of the listed Subcontractor;
 - 2) Give the listed Subcontractor five working days within which to submit written objections to DPAC and copies to Caltrans Contract Manager;
 - 3) Notify the subcontractor that if a written objection is not received or received past the due date, such failure will constitute consent to the substitution; and
 - 4) Be served by certified or registered mail to the last known address of the listed Subcontractor.
- I. The listed Subcontractor, who has been so notified, shall have five working days within which to submit written objections to the substitution to Caltrans Contract Manager. Failure to submit a written objection shall constitute the listed Subcontractor's consent to the substitution.

If written objections are filed by the listed Subcontractor, DPAC will render a written decision. DPAC shall give written notice of at least five (5) working days to the listed Subcontractor of a hearing by Caltrans on Contractor's request for substitution.

13. DBE Certification and De-certification Status

- A. If a DBE Subcontractor is decertified during the life of the Agreement, the decertified Subcontractor shall notify Contractor in writing with the date of decertification. If a Subcontractor becomes a certified DBE during the life of the Agreement, the Subcontractor shall notify Contractor in writing with the date of certification.
- B. Contractor shall report any changes to Caltrans Contract Manager within 30 days.

14. DBE Eligibility

- A. The dollar value of work performed by a DBE is credited/counted toward the goal only after the DBE has been paid.

- B. Credit for DBE Prime Contractors

Contractor, if a certified DBE, is eligible to claim all of the work toward the goal except that portion of the work to be performed by non-DBE Subcontractors.

- C. Credit for Material or Supplies

Credit for materials or supplies purchased from DBEs will be as follows:

- 1) If the materials or supplies are obtained from a DBE manufacturer, one hundred percent (100%) of the cost of the materials or supplies will count toward the DBE goal. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or

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equipment required under the Agreement and of the general character described by the specifications.

- 2) If the materials or supplies purchased from a DBE regular dealer, sixty percent (60%) of the cost of the materials or supplies will count toward the DBE goal. A DBE regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Agreement are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business provided in this paragraph.
- 3) If the person both owns and operates distribution equipment for the products, any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not an ad hoc or Agreement by Agreement basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this paragraph.
- 4) Credit for materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer will be limited to the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on the job site, provided the fees are reasonable and not excessive as compared with fees charged for similar services.

D. Credit for DBE trucking companies will be as follows:

- 1) The DBE must manage and supervise the entire trucking operation for which it is responsible. There cannot be a contrived arrangement for the purpose of meeting the DBE goal.
- 2) The DBE must itself own and operate at least one fully licensed, insured and operational truck used on the Agreement.
- 3) The DBE receives credit for the total value of the transportation services it provides on the Agreement using trucks it owns, insures, and operates using drivers it employs.
- 4) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Agreement.

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- 5) The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by the DBE.
- 6) For the purposes of this paragraph, a lease must indicate that the DBE has exclusive use and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, as long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

15. Termination of DBE

- A. Contractor shall not terminate a DBE Subcontractor, supplier or, if applicable, a trucking company, listed in the original bid/proposal without the prior written approval of the Caltrans Contract Manager. This includes work that a prime contractor can perform with its own forces, or with a non-DBE firm, or another DBE firm.
- B. Prior to the termination request, the prime contractor must notify the DBE, in writing, of the intent to terminate allowing for five days of response time in opposition of the rejection.
- C. The prime contractor must have good cause in which to terminate the DBE firm. A good cause includes:
 - 1) The DBE fails or refused to execute a written contract.
 - 2) The DBE fails or refuses to perform the work consistent with normal industry standards.
 - 3) The DBE fails or refuses to meet the prime contractor's nondiscriminatory bond requirements.
 - 4) The DBE becomes bankrupt or has credit unworthiness.
 - 5) The DBE is ineligible to work because of suspension and debarment.
 - 6) It has been determined that the DBE is not a responsible contractor.
 - 7) The DBE voluntarily withdraws, with written notification, from the contract.
 - 8) The DBE is ineligible to receive credit for the type of work required.
 - 9) The DBE owner dies or becomes disabled resulting in the inability to perform the work on the contract.
 - 10) Or other documented compelling reason.
- D. The Contractor must make an adequate GFE to find another certified DBE Subcontractor to substitute for the original DBE. The GFE shall be directed at finding another DBE to perform at least the same amount of work under the

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Agreement as the DBE that was substituted or terminated to the extent needed to meet the established contract goal for DBE participation.

- E. Noncompliance by Contractor with the requirements of this section is considered a material breach of this Agreement and may result in termination of the Agreement or other such appropriate remedies for a breach of this Agreement as Caltrans deems appropriate.

16. Air or Water Pollution Violation

Under the laws of the State of California, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

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ADDITIONAL PROVISIONS

1. General Provisions Required in all Insurance Policies

- A. Deductible: Contractor is responsible for any deductible or self-insured retention contained within the insurance program.
- B. Coverage Term: Coverage must be in force for the complete term of this Agreement. If insurance expires during the term of this Agreement, a new certificate must be received by the Caltrans Contract Manager at least ten (10) days prior to the expiration of the insurance. Any new insurance must continue to comply with the original terms of this Agreement 06A1964.
- C. Policy Cancellation or Termination and Notice of Non-Renewal: Contractor shall provide, to the Caltrans Contract Manager within five (5) business days, following receipt by Contractor, a copy of any cancellation or non-renewal of insurance required by this Agreement. In the event Contractor fails to keep, in effect at all times, the specified insurance coverage, Caltrans may, in addition to any other remedies it may have, terminate this Agreement upon the occurrence of such event, subject to the provisions of this Agreement.
- D. Primary Clause: Any required insurance contained in this Agreement shall be primary, and not excess or contributory, to any other insurance carried by Caltrans.
- E. Inadequate Insurance: Inadequate or lack of insurance does not negate the Contractor's obligations under this Agreement.
- F. Endorsements: Any required endorsements requested by Caltrans must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- G. Insurance Carrier Required Rating: All insurance companies must carry a rating acceptable to the Department of General Services, Office of Risk and Insurance Management (ORIM). If the Contractor is self insured for a portion or all of its insurance, review of financial information including a letter of credit may be required. Department of General Services, ORIM Website:
<http://www.dgs.ca.gov/orim/home.aspx>
- H. Contractor shall include all of its subcontractors as insured's under Contractor's insurance or supply evidence of insurance to Caltrans equal to the policies, coverage's and limits required of Contractor.
- I. Caltrans will not be responsible for any premiums or assessments on the policy.

2. Insurance Requirements

- A. Commercial General Liability
 - 1) Contractor shall maintain general liability on an occurrence form with limits not less than **\$1,000,000** per occurrence and **\$2,000,000** aggregate for bodily injury and

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property damage liability. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal and advertising injury, and liability assumed under an insured Agreement. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

Caltrans, State of California, its officers, agents, employees and servants are included as additional insured but only with respect to work performed under this Agreement.

- 2) This endorsement must be supplied under form acceptable to the Department of General Services, Office of Risk and Insurance Management.

B. Automobile Liability

Contractor shall maintain motor vehicle liability with limits not less than **\$1,000,000** combined single limit per accident. Such insurance shall cover liability arising out of a motor vehicle including owned, hired and non-owned motor vehicles. The same additional insured designation and endorsement required for general liability is to be provided for this coverage.

C. Workers' Compensation and Employer's Liability

Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Agreement. Employer's liability limits of **\$1,000,000** are required. When work is performed on State owned or controlled property the workers' compensation policy shall contain a waiver of subrogation in favor of the State. The waiver of subrogation endorsement shall be provided to the Caltrans' Contract Manager.

D. Pollution Liability

Contractor shall maintain Pollution Liability covering the Contractor's liability for bodily injury, property damage and environmental damage resulting from pollution and related cleanup costs incurred, all arising out of the work or services to be performed under this Agreement. Coverage shall be provided for both work performed on site, as well as during the transport of hazardous materials. Limits of not less than **\$1,000,000** per incident and an annual aggregate amount of **\$2,000,000** shall be provided. The same additional insured designation and endorsement required for general liability is to be provided for this coverage.

3. Licenses and Permits

- A. The Contractor shall be properly licensed in accordance with the laws of the State of California and shall possess a class A General Engineering license and a Hazardous Substances Removal and Remedial Actions Hazardous Certifications issued by the California Contractors State License Board (CSLB) C-57 (well drilling) Contractor's License, Registered Asbestos Contractor per Section 6505.1 of the Labor Code,

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Certified Asbestos Contractor per Section 7058.5 of the Business and Professions Code

- B. The Contractor or its subcontractors shall be properly licensed to performed Traffic Control services for the Agreement with one of the following licenses: C31 – Construction Zone Traffic Control Contractor, C32 – Parking and Highway Improvement Contractor.
- C. The Contractor shall be an individual or firm licensed to do business in California and shall obtain at his/her expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this Agreement.
- D. If Contractor is located within the State of California, the Contractor must have a business license from the city/county in which it is headquartered, however, if Contractor is a corporation, a copy of its incorporation documents/letter from the Secretary of State's Office may substitute for a business license. If Contractor is located outside the State of California, Contractor must submit to *Caltrans* a copy of its business license or incorporation papers for its State of residence showing that the Contractor is in good standing in that state.
- E. In the event any license(s) and/or permit(s) expire at any time during the term of this Agreement, Contractor agrees to provide agency a copy of the renewed license(s) and/or permit(s) within 30 days following the expiration date. In the event the Contractor fails to keep in effect at all times all required license(s) and permit(s), the State may, in addition to any other remedies it may have, terminate this Agreement upon occurrence of such event.

4. Licensed Contractor Standards for Quality of Work

- A. Licensed contractors must observe professional standards for quality of work or the California Contractors State License Board will invoke disciplinary action.
- B. Notice is hereby given that certain actions by a Contractor, including, but not limited to the following, constitute grounds for disciplinary action once the State has notified the license board of all violations:
 - 1) A willful departure from plans and specifications or disregard of trade standards for good and workmanlike construction in any material respect that might prejudice Caltrans, owner of the property upon which you perform work (Bus. & Prof. Code, 7109).
 - 2) The failure to observe and comply with all of the applicable labor laws (Bus. & Prof. Code 7110).
 - 3) Material failure to complete this Agreement (Bus. & Prof. Code 7113).
- C. Should Caltrans determine that the work or materials provided vary materially from the specifications, or, that defective work when completed was not performed in a workmanlike manner, then the Contractor warrants that he/she shall perform all

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necessary repairs, replacement and corrections needed to restore the property according to the contract plans and specifications, all at no further or additional cost to Caltrans.

5. Prohibition of Delinquent Taxpayers

Public Contract Code (PCC) Section 10295.4 prohibits the State from entering into an Agreement for goods or services with any taxpayer, whose name appears on either list maintained by the State Board of Equalization or the Franchise Tax Board pursuant to Revenue and Taxation Code sections 7063 and 19195, respectively, of the 500 largest tax delinquencies. PCC Section 10295.4 provides no exceptions to these prohibitions.

6. Rebates, Kickbacks and Other Unlawful Consideration

The Contractor warrants that this Agreement was not obtained or secured through rebates, kickbacks or other unlawful consideration either promised or paid to any state agency employee. For breach or violation of this warranty, Caltrans shall have the right, in its discretion, to terminate the Agreement without liability, to pay only for the value of work performed, or to deduct from the Agreement price or otherwise recover the full amount of each rebate, kickback or other unlawful consideration.

7. Federal Lobbying Activities Certification

- A. The Contractor certifies, to the best of his or her knowledge and belief, that no State or Federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any State or Federal agency, a Member of the State Legislature or United States Congress, an officer or employee of the Legislature or Congress, or any employee of a Member of the Legislature or Congress in connection with the awarding of any State or Federal Agreement, the making of any State or Federal grant, the making of any State or Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any State or Federal Agreement, grant, loan, or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Agreement, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form-LL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- C. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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D. The Contractor also agrees by signing this document that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000, and that all such Subcontractors shall certify and disclose accordingly.

8. Debarment and Suspension Certification

A. The Contractor's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that the Contractor or any person associated therewith in the capacity of owner, partner, director, officer, or manager:

- 1) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- 2) has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;
- 3) does not have a proposed debarment pending; and
- 4) has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

B. Any exceptions to this certification must be disclosed to Caltrans. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining bidder responsibility. Disclosures must indicate the party to whom the exceptions apply, the initiating agency, and the dates of agency action.

9. Laws to be Observed

The Contractor shall keep fully informed of all existing and future state and federal laws and county, and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. Contractor shall at all times observe and comply with, and shall cause all agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any jurisdiction or authority over the work. The Contractor shall protect and indemnify the State of California and all officers and employees thereof connected with the work against any claim, injury, or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor, a subcontractor, or an employee. If any discrepancy or inconsistency is discovered in the plans, drawings, specification, or Agreement for the work in relation to any such law, ordinance, regulation, order, or decree, the Contractor shall immediately report the same to the Caltrans Contract Manager in writing.

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10. Specific Statutory Reference

Any reference to certain statutes in this Agreement shall not relieve the Contractor from the responsibility of complying with all other statutes applicable to the service, work, or rental to be furnished thereunder.

11. Equipment Indemnification

- A. The Contractor shall indemnify Caltrans against all loss and damage to the Contractor's property or equipment during its use under this Agreement and shall at the Contractor's own expense maintain such fire, theft, liability or other insurance as deemed necessary for this protection. The Contractor assumes all responsibility which may be imposed by law for property damage or personal injuries caused by defective equipment furnished under this Agreement or by operations of the Contractor or the Contractor's employees under this Agreement.
- B. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this article.

12. State-Owned Data - Integrity and Security

- A. Contractor shall comply with the following requirements to ensure the preservation, security, and integrity of State-owned data on portable computing devices and portable electronic storage media:
 - 1. Encrypt all State-owned data stored on portable computing devices and portable electronic storage media using government-certified Advanced Encryption Standard (AES) cipher algorithm with a 256-bit or 128-bit encryption key to protect Caltrans data stored on every sector of a hard drive, including temp files, cached data, hibernation files, and even unused disk space.
Data encryption shall use cryptographic technology that has been tested and approved against exacting standards, such as FIPS 140-2 Security Requirements for Cryptographic Modules.
 - 2. Encrypt, as described above, all State-owned data transmitted from one computing device or storage medium to another.
 - 3. Maintain confidentiality of all State-owned data by limiting data sharing to those individuals contracted to provide services on behalf of the State, and limit use of State information assets for State purposes only.
 - 4. Install and maintain current anti-virus software, security patches, and upgrades on all computing devices used during the course of the Agreement.
 - 5. Notify the Contract Manager immediately of any actual or attempted violations of security of State-owned data, including lost or stolen computing devices, files, or portable electronic storage media containing State-owned data.
 - 6. Advise the owner of the State-owned data, the agency Information Security Officer, and the agency Chief Information Officer of vulnerabilities that may

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present a threat to the security of State-owned data and of specific means of protecting that State-owned data.

- B. Contractor shall use the State-owned data only for State purposes under this Agreement.
- C. Contractor shall not transfer State-owned data to any computing system, mobile device, or desktop computer without first establishing the specifications for information integrity and security as established for the original data file(s). (State Administrative Manual (SAM) section 5335.1)

13. Non-Solicitation

The Contractor warrants, by execution of this Agreement, that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained or contracted by the Contractor for the purpose of securing business. For breach or violation of this warranty, the state shall have the right to annul this Agreement without liability, paying only for the value of the work actually performed, or in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.

14. Interfacing with Pedestrian Vehicular Traffic

Pursuant to the authority contained in Section 591 of the Vehicle Code, the Department has determined that within such areas as are within the limits of the project and are open to public traffic, the Contractor shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14 and 15 of the Vehicle Code. The Contractor shall take all necessary precautions for safe operations of the Contractor's equipment and the protection of the public from injury and damage from such property.

15. Force Majeure

Except for defaults of subcontractors, neither party shall be responsible for delays or failures in performance resulting from acts beyond the control of the offending party. Such acts shall include but shall not be limited to acts of God, fire, flood, earthquake, other natural disaster, nuclear accident, strike, lockout, riot, freight embargo, public regulated utility, or governmental statutes or regulations superimposed after the fact. If a delay or failure in performance by the Contractor arises out of a default of its subcontractor, and if such default of its subcontractor, arises out of causes beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for damages of such delay or failure, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required performance schedule.

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16. Requirements for Federally Funded Contracts

During the performance of this Agreement, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

- A. **Compliance with regulations:** The Contractor shall comply with regulations relative to Title VI (nondiscrimination in federally-assisted programs of the Department of Transportation - Title 49 Code of Federal Regulations Part 21 - Effectuation of Title VI of the 1964 Civil Rights Act). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the state of California shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.
- B. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the Agreement shall act in accordance with Title VI. Specifically, the Contractor shall not discriminate on the basis of race, color, national origin, religion, sex, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT's Regulations, including employment practices when the Agreement covers a program whose goal is employment.
- C. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color or national origin.
- D. **Information and Reports:** The Contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined Caltrans or any duly authorized representative of the Federal Government to be pertinent to ascertain compliance with such regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to Caltrans, or any duly authorized Federal Agency as appropriate, and shall set forth what efforts it has made to obtain the information.
- E. **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Agreement, Caltrans shall impose such Agreement sanctions as it or any Federal funding agency may determine to be appropriate, including, but not limited to:

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- a. Withholding of payments to the Contractor under the Agreement until the Contractor complies, and/or
 - b. Cancellation, termination or suspension of the Agreement, in whole or in part.
- F. Incorporation of Provisions:** The Contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Contractor will take such action with respect to any subcontractor or procurement as Caltrans or any Federal funding agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request Caltrans to enter into such litigation to protect the interest of Caltrans, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

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FHWA-1273 -- March 10, 1994

Required Contract Provisions Federal-Aid Construction Contracts

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:
 - Section I, paragraph 2;
 - Section IV, paragraphs 1, 2, 3, 4, and 7;
 - Section V, paragraphs 1 and 2a through 2g.
5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.
6. **Selection of Labor:** During the performance of this contract, the contractor shall not:
 - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
 - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

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- 1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
 - b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."
- 2. EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
- 3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

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- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- 4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.
 - b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
 - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
- 5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor

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will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

- d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

- a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

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- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
- b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
- c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

- a. The records kept by the contractor shall document the following:
 - 1. The number of minority and non-minority group members and women employed in each work classification on the project;

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2. The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 4. The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.
- b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).
- c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

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IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

General:

- a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.
- b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

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Classification:

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
 1. the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
 2. the additional classification is utilized in the area by the construction industry;
 3. the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 4. with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

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Payment of Fringe Benefits:

- a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

- a. Apprentices:
 1. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
 2. The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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3. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
 4. In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.
- b. Trainees:
1. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.
 2. The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.
 3. Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

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4. In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. **Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-

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and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon

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Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 1. that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 2. that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
 3. that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

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- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

- 1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:
 - a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
 - b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
 - c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative Furnish materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
- 2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

- 1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty

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items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

- a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
 - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
 3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her

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health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

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(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.
2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with Caltrans' or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when Caltrans or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an

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erroneous certification, in addition to other remedies available to the Federal Government, Caltrans or agency may terminate this transaction for cause of default.

- d. The prospective primary participant shall provide immediate written notice to Caltrans or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact Caltrans or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by Caltrans or agency entering into this transaction.
- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by Caltrans or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available

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to the Federal Government, Caltrans or agency may terminate this transaction for cause or default.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
 - d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, Caltrans, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

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- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by Caltrans or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, Caltrans or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Lower Tier Covered Transactions:**

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

EXHIBIT F
Public Works - Federal

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

DISADVANTAGED BUSINESS ENTERPRISES UTILIZATION REPORT

ADM-3069 (Rev. 6/2012)

ADA Notice
For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

CONTRACT NUMBER	INVOICE NUMBER	TASK ORDER NUMBER (if applicable)	ADMINISTERING AGENCY Department of Transportation Division of Procurement and Contracts	CONTRACT START DATE	CONTRACT COMPLETION DATE
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PRIME CONTRACTOR NAME (PRINT)	BUSINESS ADDRESS	TOTAL CONTRACT AMOUNT: \$
PRIME CONTRACTOR REPRESENTATIVE NAME (PRINT)		Total Federal Share Amount: \$ OR %

ITEM NO.	DESCRIPTION OF WORK PERFORMED AND MATERIEL PROVIDED	COMPANY NAME AND BUSINESS ADDRESS	DBE CERTIFICATION NUMBER/WORK CODES	GENDER	OWNERSHIP CODE(S)	PAYMENT AMOUNT(S)		DATE WORK COMPLETE	PAYMENT DATE
						NON-DBE	DBE		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		
						\$	\$		

ORIGINAL COMMITMENT \$ _____ % DBE	<u>OWNERSHIP CODES:</u> 1= Black American 2= Hispanic American 3= Native American 4= Asian Pacific American 5= Subcontinent Asian American 6= Caucasian 7= Woman 8= Other 9= Not Applicable	TOTAL	\$	\$	
		COMMENTS:			

List all Subcontractors and Disadvantaged Business Enterprises (DBEs) regardless of tier, whether or not the firms were originally listed for goal credit. If actual DBE utilization (or item of work) was different than that approved at the time of award, provide comments.

I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT

CONTRACTOR REPRESENTATIVE'S SIGNATURE	BUSINESS PHONE NUMBER	DATE
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TO THE BEST OF MY INFORMATION AND BELIEF, THE ABOVE INFORMATION IS COMPLETE AND CORRECT

CONTRACT MANAGER'S SIGNATURE	BUSINESS PHONE NUMBER	DATE
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COPY DISTRIBUTION (Required): **(1) Original:** Contract Manager
(2) Copy: Office of Business and Economic Opportunity, Email: to smallbusinessadvocate@dot.ca.gov or FAX to 916-324-1949

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

DISADVANTAGED BUSINESS ENTERPRISES UTILIZATION REPORT - INSTRUCTIONS

ADM-3069 (NEW 6/2012)

Contractor Instructions:

This form must be completed and submitted to the Caltrans Contract Manager with each invoice. Enter the Contract Number, Invoice Number, Task Order Number (if applicable), Contract Start Date, Completion Date (Expiration Date), Prime Contractor Name, Prime Contractor Business Address, Total Contract Amount (as written on the STD. 213).

This form has two columns for entering the dollar value for the item(s) of work performed or provided by the firm. The Non-DBE column is used to enter the dollar value of work performed by subcontracting firms who are not certified DBE. The DBE column is used to enter the dollar value of work performed only by certified DBE firms.

DBE prime contractors are required to show the corresponding dollar value of work performed by their own forces.

To confirm the certification status of a DBE, access the Department of Transportation, Office of Business and Economic Opportunity website at http://www.dot.ca.gov/hq/bep/find_certified.htm or call toll free (866) 810-6346 or (916) 324-1700.

If a contractor performing work as a DBE becomes decertified and still performs work after the decertification date, enter the total value performed by this contractor in the DBE column for the certification period and the remaining work or services (after decertification) in the Non-DBE column. If a subcontractor performing work as a non-DBE on the project becomes certified as a DBE, enter the dollar value of all work performed after certification as a DBE in the appropriate column.

Date Work Complete column: Enter the date the work and/or Task order was completed for the respective pay period.

Date of Payment column: Enter the date when the prime contractor made the payment to the firm for the portion of work listed as being completed. DBE prime contractors are required to show the date of work performed by their own forces.

Contractor's Signature: Contractor certifies that the information on the ADM-3069 is complete and correct.

Contract Manager's Instructions:

Review the form as submitted by the Contractor to ensure the form is complete and accurate. Once you receive the ADM-3069 from the Contractor, enter the total (or percent) of **Federal (only) dollars** (being used in the Agreement) on the form, then sign, date, and Email to small business advocate@dot.ca.gov or FAX to 916-324-1949.

**CALTRANS LABOR COMPLIANCE STATEWIDE
PERSONNEL PHONE ROSTER**

Updated October 28, 2013

DISTRICT	LABOR COMPLIANCE OFFICER	PUBLIC TELEPHONE	CELL PHONE	FAX
North Region				
District - 1, 2, & 3	Robert Embree - Manager	(530) 741-4339		(530) 822-4321
	Evelyn Dodson	(530) 741-4380		(530) 822-4321
	James Day	(530) 741-4374		(530) 822-4321
	Malasha Neuta-Barba	(530) 741-4373		(530) 822-4321
	Missy Sanchez	(530) 741-4376		(530) 822-4321
	Mundeep Takher	(530) 741-4379		(530) 822-4321
	Mylena Smith	(530) 741-4372		(530) 822-4321
Oakland				
District - 4	Kimberly Ponder - Manager	(510) 286-5885		(510) 286-5171
	Alejandro Lopez	(510) 286-5023		(510) 286-5171
	Esteban Sanchez	(510) 286-6024		(510) 286-5171
	Evelyne Aurenсан	(510) 622-1743		(510) 286-5171
	Kevin Fong	(510) 286-5315		(510) 286-5171
	Sheila Becerra	(510) 236-4511		(510) 286-5171
	Vacant	(510) 286-5525		(510) 286-5171
Central Region				
District - 6, 9, & 10	Camillo Prandini - Manager	(559) 243-3888	(559) 824-9828	(559) 243-8028
	Anna Perez-Jacinto	(559) 243-3898		(559) 243-8028
	Colleen Bruno	(559) 243-8022		(559) 243-8028
	Judy Bremer	(559) 243-3894		(559) 243-8028
	Leslie Morris	(559) 243-8441		(559) 243-8028
	Lorraine Zavala	(559) 243-8440		(559) 243-8028
	Patricia Delgado	(559) 243-8021		(559) 243-8028
	Terry Ladd	(559) 243-8414		(559) 243-8028
	Tamra Rowley			
Los Angeles				
District - 7	Denise Barrios - Manager	(213) 897-0878		(213) 897-0601
	Bridgette Taylor	(213) 897-2340		(213) 897-0601
	Debbie Morales	(213) 897-2682		(213) 897-0601
	Linda Cammon	(213) 897-0110		(213) 897-0601
San Bernardino				
District - 8	Richard Navarro - Manager	(909) 829-3338		(909) 829-3347
	Stephanie Vargas	(909) 829-3340		(909) 829-3347
	Vacant	(909) 829-3341		(909) 829-3347
	Vacant	(909) 829-3339		(909) 829-3347

**CALTRANS LABOR COMPLIANCE STATEWIDE
PERSONNEL PHONE ROSTER (continued)**

Updated October 28, 2013

DISTRICT	LABOR COMPLIANCE OFFICER	PUBLIC TELEPHONE	CELL PHONE	FAX
San Diego				
District - 11	Monica Corralejo - Manager	(619) 688-6952		(619) 688-6848
	Alma Sanchez	(619) 688-6172		(619) 688-6848
	Frances Castillo	(619) 688-6970		(619) 688-6848
	Francine Clark	(619) 688-6977		(619) 688-6848
	Maria Roughton	(619) 688-6958		(619) 688-6848
	Wana Baha	(619) 688-3606		(619) 688-6848
Irvine				
District - 12	Maria Espinoza-Yepez - Manager	(949) 724-2294		(949) 724-2519
	Norma Quezada	(949) 724-2032		(949) 724-2519
	Sherman Hernaez	(949) 553-3566		(949) 724-2519
Headquarter Staff -- Sacramento				
	Angela Shell	(916) 654-3501	(916) 425-5853	(916) 654-5990
	Labor Compliance Program Mgr			
	Pat Maloney	(916) 653-3134		(916) 654-5990
	Labor Compliance Manager			
	Capital Outlay Support			
	Maintenance Service Contracts			
	Gloria Storer	(916) 651-6293		(916) 654-5990
	Labor Compliance Liaison			
	Erika Atilano	(916) 654-3885		(916) 654-5990
	DBE, DVBE, SB, & EEO			
Maintenance Service Contracts				
1, 2, 3, & 4	Lindsey Woolsey	(707) 428-2149	(530) 204-7745	(707) 428-2022
4, 5, 6, 9, & 10	Annette Rodriguez	(559) 243-3874	(916) 425-6376	(559) 243-3545
7, 8, 11, & 12	John Dinsmore		(213) 507-6821	(213) 897-3752
Legal				
	Alice Ramsey	(916) 654-2630		(916) 654-6128

Attachment 4
SAMPLE TASK ORDER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Agreement Number 06A1964
Date Issued

Task Order Number

Contractor	Project Manager
Project Title	Caltrans Contract Manager or Designee

Performance Period – No Task Order shall extend beyond the expiration date of the Agreement.

Work under this Task Order shall begin on / / and terminate on / / .

1. Task Order Description

2. Scope of Services (Include Task Order scope of work, expected results, and Task Order deliverables.)

3. Bonds Required
 Yes No

Contractor shall submit a Payment Bond for 100% of the Task Order which is due prior to the start date of this Task Order. No work shall commence without receipt of a valid bond.

4. Reports Yes No

Shall be in accordance with Exhibit A of the Agreement

Description/Details:

5. Cost

- A. The Contractor will be paid in accordance with Exhibit A, Section , Task Orders; Exhibit B, Section ; and the Rates shown on the Contractor’s Bid Proposal.
- B. The total amount payable by the State under this Task Order shall not exceed \$ (AMOUNT).

6. Approval Signatures

I certify that this Task Order complies with the provisions of Agreement Number and are necessary for the satisfactory completion of the product(s) contracted for, and that sufficient funding has been encumbered to pay for this work.

_____ Date

Caltrans Contract Manager’s Signature

IN WITNESS WHEREOF, this Task Order has been executed under the provisions of Agreement Number between the State of California, Department of Transportation (Caltrans), and (Contractor’s Name). By signature below, the parties hereto agree that all terms and conditions of this Task Order No. (Insert No.) and Agreement Number (Insert No.) shall be in full force and effect.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

(CONTRACTOR’S BUSINESS NAME)

_____ Date

Type name and title here and get signature above

_____ Date

Type Name and title here and get signature above

Abbreviations used without definitions in TRB publications:

A4A	Airlines for America
AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI-NA	Airports Council International-North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HMCRP	Hazardous Materials Cooperative Research Program
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
MAP-21	Moving Ahead for Progress in the 21st Century Act (2012)
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation