FACILITIES DEVELOPMENT MANUAL



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FDM 19-1-1 General

February 18, 2020

1.1 Originator

The Bureau of Project Development is the originator of this chapter. Any questions or recommendations concerning this chapter should be directed to the BPD at (608) 266-3721. Abbreviations used in this chapter are provided in <u>Attachment 1.1</u>. Central Office PS&E contacts are provided in <u>Attachment 1.2</u>.

1.2 Purpose

The submittal of Plans, Estimate and Specifications to the BPD completes region design preparations, enabling a contract to be let or executed in the case of a LFA agreement. Upon receipt of the PS&E transmittal, the BPD can begin its Proposal Preparation Process (PPP).

The procedures in this Chapter are based on the traditional highway construction contracting (design-bid-build) model. In rare cases, alternative contracting methods may be used (see <u>FDM 11-2</u>).

1.3 Composition

The complete PS&E transmittal consists of the plans (as described in Chapter 15), the estimate, the special provisions, completion of pseTrak,

http://trust.dot.state.wi.us/pse/

and the necessary exhibits. Incomplete PS&Es should not be submitted.

When structure plans are included in the contract, the region shall coordinate with BOS to assure that the structure plans can be obtained by the BPD at the PS&E due date. This coordination is especially critical in those cases where the structure plans were completed some time ago, were placed on the shelf, and now must be reviewed and/or revised prior to inclusion in a project. Structure Plans are to be Esubmitted to BOS two months prior to PS&E.

If a project does not meet all of the criteria required for letting (see <u>FDM 19-1-3.2</u>), a PS&E Exception Request must be submitted using the pseTrak system. The PS&E Exception Request must provide a detailed explanation of the issue, parcel numbers, date and initials of person entering exception, a final resolution date and any mitigation measures that will be implemented. Regions must continue to work on clearing the PS&E until all criteria are met. The region must inform the appropriate bureau approving authority as the issues are cleared.

Exceptions should be requested rarely. <u>Table 1.1</u> details the PS&E Exception approval timeline and responsibilities.

Action	Result	Weeks Prior to Ad Meeting
Project team initiates active exception. Regional management early acknowledgement and involvement.	Identifies issues that are not resolved at PS&E submittal. Establishes latest anticipated date for issue resolution. Details must be placed in exception text box or as a project note. *	PS&E submittal
Project team confirms that the exception has not been cleared and requests region management approval.	Update issues that will not be resolved prior to the ad meeting. Confirms latest anticipated date for issue resolution. Confirm ability to be cleared by AD Meeting. Details must be placed in exception text box or project note. *	Five weeks
Region management approves exceptions.	Confirm exception and request that the proposal be advertised/let with the exception. Add additional supporting information in exception text box or project note. *	Four weeks
Bureau of Technical Services & Bureau of Rails and Harbors staff review and recommend exception approvals.	Real estate, utility and railroad staff review the exception requests and associated circumstances. The staff recommends approval/denial of the exceptions to bureau management and documents this action in a project note.*	Three weeks
Bureau of Project Development and Bureau of Technical Services approves exceptions.	Acknowledges exception and approves advertising/letting the proposal with the exception. Exceptions still in place should be of minimal risk and expected to be resolve prior to letting.	Two weeks
FHWA approves exceptions.	Acknowledges exception and approves advertising/letting the proposal with the exception.	One week

Table 1.1 PS&E Exception Approval Schedule

Project teams are responsible for ensuring that all exceptions are cleared. The project team must notify BTS when a real estate or utility issue is cleared and submit a revised R/W cert DT1899 or USR DT1080 as appropriate.

* Provide enough detail to expedite the approval process. See following examples:

Attachment 1.3 Example Utility Exception Example

Attachment 1.4 Example Real Estate Exception Example

If the exception request is approved by BPD, BTS and FHWA as needed, the PS&E will be conditionally approved. The region must clear all conditions and inform BPD at Mailbox – DOT DTSD BPD Proposal Management Section as the conditions are cleared. All exceptions must be approved by BTS and BPD prior to the Ad Meeting. Projects that are designated as design federal oversight require FHWA approval prior to the Ad Meeting. Extra time and coordination may be required to obtain these approvals.

1.4 Timing

PS&Es are submitted on a quarterly schedule as defined in <u>Attachment 1.5</u>. Submittals received after 12:00 PM on the due date will be marked as late. If the quarterly due date falls on a holiday or weekend, the submittal must be received prior to 12:00 PM the following business day.

All requests for late PS&Es must be submitted to the Proposal Management Section Mailbox - DOT DTSD BPD Proposal Management Section (DOTDTSDBPDProposalManagementSection@dot.wi.gov) prior to the project's scheduled PS&E submittal date. If a request to submit a late PS&E is made after the quarterly due date, the PS&E will be marked as late. All PS&Es that have been granted an exception to be late must be submitted by 12:00 PM on the expected delivery date.

The region may alter the PS&E date of a project prior to the PS&E submittal date. Changes to a project's submittal date less than 3 months prior to the originally scheduled PS&E date, must be coordinated with the Proposal Management Section. The region will update FIIPS after any PS&E submittal date changes have been made.

PS&Es for LFA agreements must be received eight weeks prior to the anticipated execution if they are not included under the same federal project number as a bid contract.

Plans and other agreement documents prepared by local municipalities, consultants, or others outside the department must be received by the appropriate region PD section a minimum of 4 weeks prior to the scheduled PS&E due date. This allows time for the region PD's staff to review and coordinate the project.

The proposal preparation process (PPP), as accomplished over a 12-week period, is shown in <u>Attachment 1.6</u>. This process is necessary to define an orderly work flow and to allow processing of an average of 50 contracts for each letting. Approximately 6 weeks of this time are devoted to central office work activities, while the remaining 6 weeks are utilized in the bid advertisement process.

When the contract is especially complex, such as a lift bridge or a large major or mega project, the advertising time may be expanded from 4 weeks to 8 or 10 weeks. In these cases, the PS&E due date may need to be advanced accordingly. The expanded advertising time should be initiated by the region and discussed with the Proposal Management Section of the BPD. This expanded lead time is necessary to allow contractors and fabricators to obtain the cost data for any special machinery required.

Bid letting dates, along with corresponding PS&E due dates, are shown in <u>Attachment 1.5</u>. To meet these letting dates, the BPD has determined intermediate dates by which certain specified activities must be accomplished.

1.5 Processing

The PS&E documents are processed between PS&E submittal and the ad meeting for the scheduled letting. Please remember that all PS&Es must be processed within this time, not just one. Major activities that occur during this process include: reviewing, editing and updating the plans, estimate and special provisions, establishing DBE goals for federal aid contracts, composing the advertisement, building the actual contract documents and financing the project(s). Late PS&E submittals jeopardize the PPP. The activities required to turn a PS&E into a contract proposal require staff not only from BPD but also BTS, DTIM and FHWA. Delays in one processing step make it difficult to complete subsequent steps on time.

The schedule for the major PPP activities is listed in <u>Attachment 1.5</u>. The column titled, "Final R/W, Utility & RR Check; Ad Meeting; FHWA authorize to advertise for Bids," is the date on which a final decision is made whether to advertise each specific contract(s) in the proposed letting. During the Ad meeting, each contract included in the subject letting is reviewed. The meeting is chaired by the Proposal Development Specialist, BPD, and attended by the Chief Proposal Development Engineer BPD, Project Services Chief, BPD; a representative from the Acquisition & Services Section of the BTS; a representative from the Utilities Unit of the BTS; a representative from the Railroads and Harbors Section; and a representative from the BSHP. The BHO may be represented when issues related to them are present on contracts being proposed for the letting.

The purpose of this review is to assure that all real estate interests have been acquired and are clear; all utility and railroad coordination, clearances, and agreements have been completed; hazardous materials identification and remediation have been completed; necessary permits have been issued; and all design issues have been addressed. Any other problems associated with a contract that might affect its availability for letting are also examined at this time. An email summary of the ad meeting is sent to all project managers and PDS supervisors with contracts that have unresolved issues. This email is also sent to the FHWA and various others throughout WisDOT. This email documents PS&E approval of the contracts in the subject letting and summarizes the unresolved issues. After this meeting, the advertisement for the subject letting is prepared. After FHWA authorizes the federal aid contracts, the advertisement is posted to the WisDOT Internet site under bid letting advertisements at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

As described under section 1.3 - Composition above, PS&Es may be conditionally approved. The BPD or the FHWA will notify the project manager of any conditions relating to the PS&E approval. The project manager is responsible for ensuring that all issues are resolved and notifying BPD of any status change. A contract will only be allowed to be advertised with unresolved issues, if it has an approved PS&E Exception Request in pseTrak. Contracts with unresolved issued are monitored during the five weeks between advertisement and letting to assure the issues are resolved or the contract may be withdrawn from the letting.

The following table lists the units that are responsible for the major PPP activities. Some activities occur concurrently, others must be completed prior to subsequent processing.

	Activity	STH System	Local System	FDM Reference
	Prepare PS&E Region or consultant		Local Unit or consultant	19-1-1
	Prepare Structure Plans	Bureau of Structures or consultant (BOS reviews consultant prepared structure plans).	Local Unit or consultant (BOS reviews local unit or consultant prepared structure plans.)	19-1-1
uo	PS&E Pre-Submittal Review	Region or consultant	Local Unit or consultant	19-40 exhibit 1.1
Region	Approve PS&E Submittal	Region Project Managers recommend approval.	Local Unit or consultant recommends approval.	19-10-15
		Region PD Supervisor named in plan letter verifies that the PS&E was prepared to acceptable standards.	Region PD Supervisor named in plan letter verifies that the PS&E was prepared to acceptable standards.	
	Signing of Plans [signatures have	Region Project Managers recommend signing.	Local Unit or consultant recommends signing.	19-10-5
	meaning as noted in FDM 15-1-10]	Region Director or designer signs.	Region Director or designer signs.	
	Review PS&E	For conformance with DSR: Project Oversight Unit	Local Program Delivery Manager	19-40-1
	Assign Proposal Numbers	BPD Proposal Management Section	BPD Proposal Management Section	N/A
	Add Final Structure Plans	BPD Proposal Development Unit	BPD Proposal Development Unit	19-1-1
	Review Plans	BPD Proposal Management Section	BPD Proposal Management Section	19-40-1
	Review SpecialBPD Proposal ManagementProvisionsSection		BPD Proposal Management Section	19-15-1
	Assign DBE Goals if Applicable	BPD Proposal Management Section	BPD Proposal Management Section	N/A
	Recommend PS&E	BPD Project Oversight	BPD Project Oversight	19-1-1
fice	Approval	TMP, permits and design standards	TMP, permits and design standards	
Ĵ		BTS Acquisition and Services	BTS Acquisition and Services	
'al (Real estate	Real estate	
Central Of		BTS Utility and Access Unit	BTS Utility and Access Unit	
0		Utilities	Utilities	
		DTIM Rails and Harbors	DTIM Rails and Harbors	
		RR engineering	RR engineering	
		RR real estate	RR real estate	
	Build Proposal	BPD Proposal Management Section	BPD Proposal Management Section	N/A
	Submit Federal Oversight Projects for FHWA Approval	Proposal Management Section submits PS&E, contract proposal and plan letter to FHWA for review and approval	Proposal Management Section submits PS&E, contract proposal and plan letter to FHWA for review and approval	19-10-15
	Approve PS&Es	BPD Proposal Management Section and FHWA	BPD Proposal Management Section and FHWA	19-1-1
	Advertise Proposals	BPD Proposal Management Section	BPD Proposal Management Section	19-1-1

LIST OF ATTACHMENTS

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Attachment 1.6	Central Office Proposal Preparation Process

FDM 19-1-3 Project Letting Process (PLP)

February 18, 2020

The PLP establishes the Department's policies and strategies for how projects within its annual improvements programs should be scheduled for letting within each fiscal year (FY) of the 6-year program. It monitors the spectrum of elements that can influence letting strategies and determines the optimal blending of those influences to establish letting policies for:

- Percent of program dollars by let dates
- Number and type of proposals requiring review
- Individual project or program specific scheduling requirements
- Quantities
- Current and future programmatic funding assumptions
- Scheduling strategies for families of project types for optimal bidding competition

The PLP attempts to achieves simultaneous goals of letting all scheduled program dollars, achieving best possible bid prices, and delivering projects at lowest possible cost. The PLP also provides policy guidance on the roles and responsibilities for all parties involved in the delivery of projects to achieve PLP deliverables.

3.1 Guidelines and Definitions

<u>PLP</u> – The process of developing a letting plan, delivering complete PS&Es and measuring the progress of delivery according to that plan.

<u>PLP Committee</u> - A committee composed of staff from the Bureau of State Highway Programs (BSHP), region, and Bureau of Project Development (BPD) who will administer the PLP.

<u>Letting Implementation Plan (LIP)</u> - A list of projects to be let in a given fiscal year. Projects are identified by the fiscal quarter when they will be submitted and the month when they are expected to be let.

<u>Quarterly PS&E Delivery Date</u> - The first business day of February, May, August, November when state and local PS&Es are due at BPD for all projects to be let.

<u>Annual Letting Goal</u> - The amount of dollars established by the division that will be spent during a particular fiscal year for all state and local highway project contracts to be let, awarded and executed within that fiscal year.

<u>Quarterly and Monthly Target Ranges</u> - Ranges of dollars or percentages of the Annual Letting Goal within which the cost of let projects will be maintained for each month and quarter of the year when establishing and maintaining the LIP and when conducting lettings.

<u>Advanceable Projects</u> - A project that is scheduled to complete its PS&E one or more FYs earlier than its FIIPS scheduled PS&E date. An advanceable project is given an Early PS&E (EPSE) tag in FIIPS along with an EPSE due date that is earlier than the PS&E date.

<u>Advanceable Program</u> - The program tags, schedules, and delivers a specific number or dollar volume of advanceable projects for each year of the approved improvement program.

<u>Advanceable Project Letting Process</u> (APLP) - APLP is a sub-component of the PLP. The application of PLP concepts for the scheduling and delivery of the Advanceable Program.

<u>Advanceable Letting Implementation Plan (ALIP)</u> - The ALIP is a sub-component of the LIP. The list of projects that are advanceable for let in any year. Advanceable projects are scheduled as necessary to achieve the APLP goals.

<u>Quarterly PS&E Results Report (QPRR)</u> - A report generated within 15 days of the Quarterly PS&E Delivery Date which indicates which of the scheduled LIP projects for that quarter were received by the due date.

<u>Advanceable Quarterly PS&E Results Report (AQPRR)</u> - A sub-section report of the QPRR that indicates which of the scheduled ALIP projects for that quarter were received by the due date, and the cumulative tracking of the ALIP delivery goals for the FY.

<u>Current Monthly Letting Report (CMLR)</u> - A report generated monthly which indicates which of the scheduled LIP and ALIP projects were LET in the current month.

<u>Letting Status Report</u> - A monthly report that shows the accumulated costs of each month's lettings for the fiscal year to date.

3.2 The Purpose

The LIP is structured to maximize benefits for the department. The quarterly goals provide a letting plan intended to obtain the most cost-effective bidding environment.

Quarterly PS&E submittals give the department an opportunity to meet the quarterly letting goals by providing flexibility to move projects within a quarter. BPD will contact the project manager to discuss the possibility of moving projects between lettings.

The regions will de	liver projects, ready to b	be let, based on the schedule below.

Projects to be Let in These Months	All PS&E's are Due in CO on These Dates
November, December, January	August 1
February, March, April	November 1 of the previous year
May, June, July	February 1 of the same year
August, September, October	May 1 of the same year

The department has set the following quarterly letting goals to be met by this process:

FY Quarter	% of the Annual Program
1	24%
2	30%
3	37%
4	9%

The Department has set the following ALIP goals for submission of EPSE's for advanceable projects within the FY:

CY Date	% of Annual Advanceable Program \$
May 1 prior to FY of advancement	50%
Sep. 1 of the FY of advancement	75%
Dec. 1 of the FY of advancement	100%

The annual Advanceable Program amount is currently determined by Wis. Stat. 84.01(33). The Department may supplement the statutory goals from time to time, and it will be the PLP Committee's responsibility to adjust the ALIP and APLP accordingly.

The overall process for a given fiscal year is shown in <u>Attachment 3.1</u> and is explained below.

3.3 The Process

The PLP consists of three major activities.

- 1. Develop and maintain an annual LIP and ALIP.
- 2. Deliver PS&Es according to the LIP and ALIP
- 3. Monitor PS&E delivery and report progress

3.3.1 Develop and Maintain the LIP and ALIP

A LIP and ALIP will be prepared for each state fiscal year. The original LIP and ALIP for any fiscal year will be completed by October 1 of the preceding calendar year. See <u>Attachment 3.2</u> for the schedule of activities associated with the LIP and ALIP.

The LIP will contain all projects for which the DTSD will advertise and receive bids during the fiscal year regardless of program, type of funding or jurisdictional authority. It will include state and local improvement projects, and state trunk highway traffic and maintenance projects. The July 15 submittal shall have the "level of effort" entries replaced with actual projects. The ALIP contains only the state improvement projects (3R and Backbone) specifically scheduled with an early let date to achieve the department's advanceable program requirements for the fiscal year.

The preliminary LIP and ALIP will be generated from FIIPS. Regions must ensure that the schedule is the way they want it prior to the October 1 snapshot date. If any project must be let in a particular month or within a specific time period, the Region is required to submit a report to request that and explain why it is necessary. The report is due July 15 and is submitted by email using the format shown in <u>Attachment 3.3</u>. Examples and some typical reasons for these types of restriction are shown in <u>Attachment 3.3</u>.

The responsibility for developing the LIP and ALIP rests jointly with the regions and the PLP Committee. The PLP Committee will initiate the annual LIP and ALIP development process and will coordinate directly with each region, mega project teams and the backbone and major's committees. The region directors are ultimately responsible for PLP goal achievement.

The purpose in preparing the LIP and ALIP will be to compile a list of projects expected to be let or available to be advanced into each quarter of the fiscal year that meet the following objectives:

- 1. Complies with established program levels.
- 2. Reflects region allocations equitably.
- 3. Meets statewide quarterly and cumulative monthly dollar target ranges.
- 4. Provides a reasonable balance between quantities of earthwork, asphalt paving, concrete paving, base course and structures.
- 5. Complies with any statutory directives for project or program deliverables.

The first two objectives will vary from year to year. Pertinent information will be provided by the BSHP. The fourth objective will also vary depending upon historical quantities for each of the major types of work.

For the third objective, letting dollar levels will be established for the fiscal year and the percentage ranges shown in <u>Attachment.3.4</u> will be applied to determine the desired dollar level targets for each cumulative monthly letting total.

The PLP Committee chairs will negotiate with the regions as needed to bring the LIP and ALIP into compliance with the objectives above. It will request revisions from individual regions whose schedule of projects does not comply with program allocation limits. When schedule adjustments are needed to meet target ranges or when program revisions are required to produce an acceptable balance of quantities for major work items, the committee will contact all regions to solicit potential changes. It will evaluate all potential schedule changes and choose those that will produce an LIP and ALIP that best complies with the above criteria.

The PLP Committee is responsible for maintaining an updated LIP and ALIP should either region or centrally initiated changes are necessary. The Committee will work with the regions to determine the best method for achieving necessary changes.

3.3.2 Deliver Planned PS&Es and Early PS&Es

Regions are responsible for submitting PS&Es and Early PS&Es to central office on (or up to two weeks prior to) the dates specified in the LIP and ALIP.

If a region believes it will be unable to deliver a PS&E or Early PS&E for the quarter specified in the LIP or ALIP, the LIP or ALIP should be updated. The region should contact the PLP Committee chairs to initiate the substitution process or clarify delivery time. If the deferral will not seriously impair meeting the quarterly targets and if the project can still be delivered for letting within the fiscal year, the region may be allowed to reschedule the project without further action. However, if BPD and BSHP/OPFI feels the deferral threatens the ability to achieve a letting level within the target range, a substitute project will be requested.

The region requesting the deferral will be expected to produce the substitute project. In the event it cannot, the committee will ask all the other regions for potential substitutes. The substitute project(s) chosen will be the one(s) most similar to the deferred project and/or which best meet the criteria noted under "Develop and

Maintain the LIP".

In addition to arriving at the central office by the due dates shown in <u>Attachment 3.1</u>, PS&Es and Early PS&Es must be able to be let to be credited as delivered in compliance with the LIP or ALIP. The following criteria, defining projects that can be let, apply to all let projects.

- 1. The PS&E is complete. All the pieces are included, and individual pieces are complete.
- 2. Real estate acquisition must achieve status 1 or 2, as defined in the Real Estate Manual, within 45 days of the quarterly PS&E due date.
- 3. Utility parcels and agreements must be received by central office and be executed by both the state and the utility company within 45 days of the quarterly PS&E due date. Arrangements for non-compensable moves must be completed.
- 4. Railroad stipulations and agreements necessary to allow contract work to proceed must be received by the central office and must be executed by both the state and the Railroad Company within 45 days of the quarterly PS&E due date.
- 5. All permits must be issued and validated within 45 days of the quarterly PS&E due date.
- 6. All necessary reports and documents supplied to or approved by the central office must be received and approved by the quarterly PS&E due date.
- 7. The following actions regarding hazardous materials must be completed by the quarterly PS&E due date.
 - Site investigation (Phases 1 and 2) finished.
 - Remediation plans (Phase 3) developed for dealing with materials on the right-of-way and approved by DNR.
 - Contracts signed for remediation to be conducted independently of and concurrently with highway construction. Language informing bidders included in the special provisions.
 - Appropriate bid items and special provisions included in the PS&E when remediation will be accomplished under the highway construction contract.

The region shall document the above requirements have been met as detailed in FDM 19-1 Table 1.1.

There may on occasion be valid reasons to consider an exception to these delivery guidelines. It is the responsibility of the party requesting the exception to contact the PLP Committee chair for approval of that exception. Otherwise all PS&Es and EPS&Es are expected and assumed to be compliant with the delivery guidelines.

3.3.3 Monitor PS&E Delivery and Report Progress

A region missing a quarterly PS&E due date will receive no credit for on-time delivery of the project either in that or any subsequent quarter. However, a project for which the PS&E fails to arrive by its quarterly due date will not necessarily be deferred to the next quarter for letting. If there is sufficient time to process it for its scheduled letting or a later letting in that same quarter, it will be let that quarter. If there is not sufficient time to process it for failure to deliver the PS&E on time the LIP will be adjusted to show the project, but it will not be used to determine the success rate for the quarter performance will be measured and reported. They are the QPRR and the CMLR.

The QPRR will be used as an early warning device to identify non-compliance with LIP objectives and to alert management that special action may be required. The report will be prepared by the BSHP and sent to the PLP Committee, all regions, and division upper management within 15 days following the quarterly PS&E delivery date. The QPRR will be prepared four times a year for state projects, for local projects and combined. For each quarter it will list all of the projects on the LIP for that particular quarter and for which PS&Es arrived by the quarterly delivery date.

The second standard report, the CMLR, will be used to measure progress in achieving the LIP objective on a monthly basis.

The Ad Meeting Minutes will be prepared and distributed by the BPD by the end of the week in which each monthly ad meeting occurs, about six weeks prior to a letting, for the purpose of determining which projects will be advertised for that letting.

LIST OF ATTACHMENTS

Attachment 3.1 Project Letting Process for Fiscal Year "X"

Attachment 3.2	Schedule for Establishing Annual Letting Implementation Plan (LIP)
Attachment 3.3	Sample Letting Restriction List
Attachment 3.4	Quarterly & Cumulative Monthly Goals

FDM 19-1-5 Proprietary Products

August 17, 2020

5.1 General

Competitive Bidding for WisDOT highway construction projects is conducted under the authority provided in Wisconsin Statutes 84.06(2)(a) Bids, Contracts. Contracts shall be awarded to the lowest competent and responsible bidder as determined by the department. Competitive bidding opportunity is required by Statute both for the award of the contract, and for the various products, materials and processes involved in the work.

A proprietary product is a product, specification, or process identified in the plans or specifications by a "brand" or trade name (e.g.: "Acme Pozzolan"). However, it may also be a product so narrowly specified that only a single provider could meet the specification, regardless of whether the manufacturer is named explicitly.

To best facilitate competition, effort should be made to use generic specifications written to obtain the desired results and at the same time assure full bidding opportunity for substantially equivalent materials, equipment, and methods. The contract specification of a proprietary product may restrict competition, and increase cost, as the pool of available products is reduced to the product specified. In some cases, however, the need for a specific product outweighs the need to procure products competitively.

The use of a specification issued by a national organization (i.e. AASHTO, ASTM) does not ensure that the specification is generic in nature. Designers should research the market prior to specifying products outside WisDOT standards, attempt to verify the number of potential suppliers during PS&E development, and determine the need for sole-source documentation on that basis.

5.1.1 Procurement Conditions

Proprietary products shall be procured in accordance with "Buy American" provisions under Title 23 CFR 635.410.

Uses of proprietary products that are 100% locally funded and competitively bid with a State/Federally funded project must follow documentation guidance under $\frac{\text{FDM 19-1-5.3}}{\text{FDM 19-1-5.3}}$.

Use of proprietary products on a Project level is allowed without supplemental documentation if only proprietary products are acceptable and two or more proprietary products from multiple manufacturers are offered as alternatives. Specifications must include as many acceptable products as possible.

Proprietary products that fall under specifications for which the Department publishes Approved Product or Source Lists (See <u>FDM 19-1-5.5</u>), but which have not fulfilled the requirements for inclusion on those lists, shall not be specified for sole-source use on WisDOT projects.

Generally, sole-source specification of products already on Approved Product Lists should be avoided, as this increases cost. For 100% locally funded items or for systems that will be locally owned after construction, sole-source/proprietary electrical products from the Electrical Approved Product Lists may be specified with documentation per <u>FDM 19-1-5.3</u>, using the synchronization criteria from <u>FDM 19-1-5.2.1</u>. Any other proposed specification narrowing the pool of eligible products from a published Approved Products List should be coordinated with BPD Design Oversight Section.

5.2 Justification of Proprietary Applications

To facilitate compliance with the above statutory requirements, the Department has established a set of allowable conditions under which proprietary applications may be specified. Proprietary applications may be specified from a sole source with supplemental documentation per FDM 19-1-5.3 under the following justification criteria:

5.2.1 Synchronization with existing facility

Synchronization is providing a product that matches current or desired characteristics of a project's existing facility or inventory. Synchronization may be based on:

- 1. Function The proprietary product is necessary for the satisfactory operation of the existing facility. An example of synchronization based on function would be replacing or addition to street signal controllers. Only one brand is compatible to the Municipality's existing system.
- 2. Aesthetics The proprietary product is necessary to match the visual appearance of existing facilities. An example of synchronization based on aesthetics would be selected Community Sensitive Solution

(CSS) products.

3. Logistics - The proprietary product is interchangeable with products in an agency's maintenance inventory. An example of synchronization based on logistics would be specifying a specific anchoring system for high tension cable barrier for which the maintaining agency only stock piles the proprietary product.

5.2.2 Unique Product or Single Source

A unique product with no suitable alternative(s) or "single source" means that after a product search, only one product is determined to be reasonably available for the required product, process, or construction item. Specifying "no suitable alternative" is documenting that only one product can perform a desired function or satisfy a need.

Example where a single source process may apply. A historic bridge requires specialty rehabilitation work. The project design team, after a search determines that there is only one supplier that can provide the replacement parts and still meet design requirements.

5.2.3 Best Interest of the Public (similar products may exist)

The following factors may influence use of a product in the best interest of the public.

Specific needs and how the proprietary product best accomplish meeting those needs.

Critical factors may include time to construct, availability, complexity to construct, impact to road users, safety issues, and innovation.

Engineering and economic analysis to support the proprietary product. This may include product specifications/properties/performance/innovation that is consistent with the project needs. Compatibility or improved integration with other project items can support the use of the product. Advantages for production availability and distribution.

5.2.4 Department-Approved Research

This justification requires a research plan to exist within WHRP, FHWA (coordination with FHWA is not required for use of such research to justify specifying a proprietary product), or one of the WisDOT Central Office Bureaus. BTS-Materials will provide review of documentation necessary in the context of research justifications for proprietary applications.

5.3 Proprietary Product Documentation

5.3.1 Project-Level Proprietary Product Documentation

Region PDS prepares Proprietary Product documentation. Final accepted documentation shall be filed in the Region's Design Project & Contract Files. Final approval for project-level proprietary product applications lies with the Regional PDS Chief.

5.3.2 Statewide Proprietary Product Documentation

Proprietary products that will potentially see frequent statewide use over an extended period (i.e., a patented product essential for functional synchronization that is unlikely to become more broadly available) may be deemed eligible for Division approval at the statewide level.

The appropriate DTSD statewide bureau will develop and approve documentation for statewide proprietary products, based on where technical oversight of the product category lies. Coordination with BPD Design Oversight Section is required for to final approval.

5.3.3 Documentation Format

Documentation for both Project and Statewide proprietary products shall be prepared using Form <u>DT1584</u>. Documentation for use of proprietary products based on best interest of the public should supplement the above with factors of influence found in FDM 19-1-5.2.3.

Documentation for use of proprietary products based on active Department-approved research under <u>FDM</u> <u>19-1-5.2.4</u> should supplement the above with research details as coordinated through BTS.

Multiple products representing components furnished under the same bid item from the same manufacturer, may be documented on the same <u>DT1584</u>. Different bid items or manufacturers require separate documentation.

Proprietary products specified by change order require Proprietary Product documentation as outlined above.

5.4 Publication of Proprietary Product Lists

Under the above rules, the Department will maintain a Statewide Proprietary Product List that delineates

proprietary products and materials that are pre-approved at the Division level for use on WisDOT projects. Region-level documentation of project uses of Statewide proprietary products only need to include the approved list showing the product. BTS materials management section will update the list as new products are added and old products expire. The approved Statewide proprietary product list can be found at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

No list will be published for project-level uses of proprietary products. Regions are responsible for maintaining those records as part of the Design Project & Contract Files.

5.5 Approved Product Lists

WisDOT also maintains Statewide Approved Product Lists that consist of materials or sources for which Quality Assurance procedures under Title 23 CFR 637 are partially conducted on a Division-wide basis, and which are compiled and published by BTS materials management to facilitate project-level acceptance.

"Approved" in this context means that listed materials and sources have been tested and/or inspected to verify consistency of character or process relative to the applicable Department specifications. Approval does not confer implicit project-level acceptance of such materials or sources. Project-level acceptance of all materials is subject to applicable requirements contained in the contract.

5.5.1 Current Approved Product Lists

All approved product and source lists are available at the following link:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

Approved product lists for Erosion Control items under Standard Specification Section 628, along with further guidance on product approval, are published here (also linked from the above primary site):

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/pal/default.aspx

Approved product lists for Electrical items under Standard Specification Sections 652, 653, 655, 657, 658, 659, 661, 670, and 673, along with guidance on product approval, are published here (also linked from the above primary site):

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/prods/qpl.aspx

5.6 References

Wis. Stat. 16.75 (2)(a)

Wis. Stat. 84.06 (2)(a)

LIST OF ATTACHMENTS

Attachment 5.1 Example DT1584 Patented or Proprietary Product Justification

FDM 19-1-7 Use of Publicly Owned Equipment on Let Contracts

February 25, 2011

Publicly owned equipment should not normally compete with privately owned equipment on a project to be let to contract. There may be exceptional cases, however, in which the use of equipment of the State or local public agency for highway construction purposes may be warranted or justified. Proposed use of publicly owned equipment must be supported by a CEF (see <u>FDM 3-5-10</u>). For federal oversight projects, the CEF requires FHWA approval.

Where publicly owned equipment is to be made available in connection with construction work to be let to contract, Federal funds may participate in the cost of such work provided the following conditions are met:

- 1. The proposed use of such equipment is clearly set forth in the PS&E.
- The advertised specifications specify the items of publicly owned equipment available for use by the successful bidder, the rates to be charged, and the points of availability or delivery of the equipment; and

3. The advertised specifications include a notification that the successful bidder has the option either of renting part or all of such equipment from the State or local public agency or otherwise providing the equipment necessary for the performance of the contract work.

In the rental of publicly owned equipment to contractors, the State or local public agency shall not profit at the expense of Federal funds.

Unforeseeable conditions may make it necessary to provide publicly owned equipment to the contractor at rental rates agreed to between the contractor and the State or local public agency after the work has started. Any such arrangement shall not form the basis for any increase in the cost of the project on which Federal funds are to participate.

When publicly owned equipment is used on projects constructed on a force account basis, costs may be determined by agreed unit prices or on an actual cost basis. When agreed unit prices are applied the equipment need not be itemized nor rental rates shown in the estimate. When the work is to be performed on an actual cost basis, approval for the schedule of rates proposed to be charged, exclusive of profit, for the publicly owned equipment made available for use is required.

FDM 19-1-9 State Owned, Furnished and Designated Materials for Let Contracts February 25, 2011

9.1 Applicability

Applies to all Federal-aid highway construction projects. References: 23 U.S.C. 112 and 23CFR 635.407

9.2 Guidance

Current FHWA policy requires that the contractor shall

- 1. Furnish all materials to be incorporated in the work and
- 2. Be permitted to select the sources from which the materials are to be obtained.

Exceptions to these requirements may be made when there is a definite finding, by the STATE or Local Public Agency and concurred in by the FHWA that it is in the Public's Interest to require the contractor to use materials furnished by the STATE or Local Public Agency or from sources designated by the STATE or Local Public Agency. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

A CEF justifies that State owned, furnished and designated materials is in the public's interest. For all federal oversight projects, the CEF must be approved by FHWA.

9.2.1 Manufactured Materials

When the use of State-furnished manufactured material, such as materials for lighting and traffic signals, is approved based on a CEF, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of Federal policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by the State must be acquired through competitive bidding, unless the CEF justifies another method.

9.2.2 Local Natural Materials

When the State owns or controls a local natural materials source, such as a borrow pit or a stockpile of salvaged pavement materials, or flyash, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a CEF.

To permit prospective bidders to properly prepare their bids, the location, costs, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

9.3 Mandatory Disposal Sites

Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site may be shown in the contractor provisions. A mandatory site shall be specified when there is a finding by the STATE or Local Public Agency that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the CEF.

Factors to justify a CEF may include such items as cost effectiveness, system integrity, local shortages of materials and environmental considerations.

Responsibility	Action
Region PDS and Local	Prepare a CEF justifying State owned/furnished/designated materials.
Program Management Consultant	Obtain approval signature from Region Director or designee. Request review and approval from BPD-Statewide (If project is On-System send to Oversight Engineers if project is local send to Chief Local Project Delivery Section)
	Document CEF approval dates in the DSR, and PS&E Plan letter. Document Mandatory Disposal Sites approved in the Environmental Document in the DSR and PS&E Plan Letter.
BPD – Statewide Bureaus	Review and if appropriate approve the CEF. For Federal Oversight projects forward the CEF to FHWA for final review and approval. Return the approved CEF to the Region.

FDM 19-1-11 Expedited Lettings

May 17, 2021

11.1 Selecting an Appropriate Contract Type

Most of the department's projects are let using the normal PLP. The PLP utilizes a quarterly production schedule, which helps the department achieve its quarterly letting goals shown in <u>Attachment 3.1</u>.

When there is insufficient time to develop a PS&E package, because the roadway is damaged or jeopardized by flooding, structure failure, landslide, or another extraordinary condition, emergency repairs may be necessary using an emergency contract. The HMM contains criteria for emergency contracts, and information on how to process them in section 3.1.20, Emergency Work,

https://wisconsindot.gov/Documents/doing-bus/local-gov/hwy-mnt/mntc-manual/chapter03/03-01-20.pdf

Note that emergency contracts are not synonymous with ER contracts. ER contracts are contracts funded under the Federal Emergency Relief Program and may include emergency contracts, expedited contracts, or regular, competitively-bid contracts for either emergency or permanent work.

In special circumstances and only when the department has an urgent need to let a project, an expedited letting process may be used if the BPD provides prior approval. This process may only be used if the region has enough time to:

- Have previously submitted the PS&E package to BPD, and has addressed all concerns raised,
- Submit a complete PS&E package,
- Secure sufficient funds and verify the funding source(s) with the DTIM's Fiscal Services Section,
- Clear all utility and railroad interests, and
- Purchase all required right-of-way.
- Have previously coordinated with BOS to ensure all structure plans have been submitted to BOS with adequate time to review plans, and all concerns raised have been addressed.

A decision matrix is provided in <u>Attachment 11.1</u> that may be used when determining which letting process is needed for a particular project.

11.2 Expedited Letting Documents

A project being let using the expedited letting process is an exception. In addition to the previously mentioned criteria, an expedited project with federal funding will only be allowed if FHWA agrees to participate and has approved all environmental documents, the TMP, and PS&E documents.

The Emergency/Expedited Justification form must be submitted to initiate either the emergency contract or expedited letting process. The Emergency/Expedited Justification form can be found in the HMM section 18.20, Emergency Work, attachment 1.

The region must submit all exhibits that are required for a regular let project, i.e., the plans, estimate, special provisions, plan letter, project time chart, and utility, railroad, and right-of-way certifications. All utility, railroad, and right-of-way interests must be clear before submittal. There will be NO exceptions.

11.3 Final PS&E Review Process

By email, the Central Office Proposal Management Section will initiate the expedited letting process by notifying everyone involved in the proposal preparation and letting process, region and statewide bureau directors, the Secretary's Office, and the Governor's Office. The Proposal Management Section will establish a PS&E and

letting date. The PS&E date established by BPD will take into consideration the time necessary to review all PS&E documents and advertise the project.

If federal funding is being used to finance the project, the region will confirm with DTIM that FHWA will participate and will notify the Proposal Management Section Chief that there will be federal participation. The region's SPO section initializes the design project in FIIPS and requests authorization, and contacts their Regional Oversight Engineer and, if the project will have federal funds, FHWA's Field Operations Engineer to coordinate the completion of all project reviews.

The region is responsible for completing all environmental, TMP and permitting processes, identifying construction administration resources, and completing all project documents including the estimate in AASHTOWare Project Preconstruction. When e-submitting the PS&E package to BPD-Project Services Section, the designer must enter "expedited letting" in the comment field and check the "ExLet" box on the e-submit form, and provide the name and contact information of a project person, who will be available as needed during plan checking, proposal preparation and review, and letting stages.

Upon receipt of the PS&E package, the BPD will review the submitted plans, estimate, and special provisions, create the proposal, and will establish a letting in AASHTOWare Project Preconstruction[™] and Bid Express. Every effort will be to include the expedited project in an already established letting. If federal funds are being used and the project is designated design oversight, BPD will submit the PS&E to FHWA for approval. If the contract is designated construction oversight, the proposal will be labeled as such.

Before advertising the project, an "Ad Meeting" teleconference will be held. Instead of advertising the proposal for 5 weeks, the advertisement period for a normal let project, the expedited proposal will be advertised for a period of 3 weeks or less. For federal aid projects, FHWA must approve of advertisements less than 3 weeks in duration. BPD will place a special letting notice on HCCI and Bid Express web sites, and will place the proposal and plan on the special lettings web site. BPD will not print any paper copies of the proposal nor will it print and distribute CDs to contractors. Proposal Request forms must be submitted before 10:00 AM, the day prior to the letting. All bids must be submitted electronically.

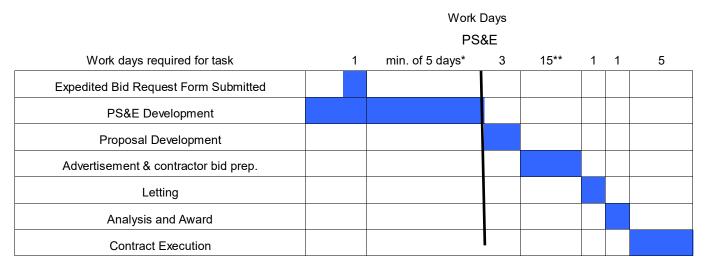
BPD will open the bids at 9:30 AM on the day of the letting and will post bid results to Bid Express and HCCI. The Proposal Management Section will analyze the bid results, seek concurrence in award from FHWA, if appropriate, and award the contract. The department will process the DT25 form and forward it to the Governor's Office.

The successful bidder will submit the required contract documents. After award, the Design and Construction Technologies Support section will transition the proposal from AASHTOWare Project Preconstruction™ to AASHTOWare Project Construction™. At the completion of the transition process, the region will receive a system generated email notification that the process is complete, The Proposal Management Section will execute the contract in AASHTOWare Project Construction™.Proposal Management Section will execute the contract, notify the region, and send the contract to the appropriate FieldManager account.

11.4 Timing

Since Expedited Lettings happen so quickly, good communication is essential. The actual schedule will be modified to meet the project's needs. The advertisement period will typically be from one to three weeks. The following graphic depicts one possible Expedited Let schedule.

STATE FUNDED ONLY



* the region must submit the Expedited Letting Request form at least 5 work days before the anticipated PS&E date

** the ad period may be reduced, check with the Proposal Management Section

WITH FEDERAL FUNDING

	Work Days						
	PS&E						
Work days required for task	1	min. of 5 days*	3	15**	1	2	10
Expedited Bid Request Form Submitted							
PS&E Development							
Proposal Development							
Advertisement & contractor bid prep.							
Letting							
Analysis and Award							
Contract Execution							

* the region must submit the Expedited Letting Request form at least 5 work days before the anticipated PS&E date

** the ad period requirement is 3 weeks, shorter advertisements require FHWA approval

LIST OF ATTACHMENTS

Attachment 11.1 Selecting a Contract Type

ABBREVIATIONS USED IN FDM CHAPTER 19

- ADA Americans with Disabilities Act
- AFE Authority of Expenditure
- ASP Additional Special Provision
- BHO Bureau of Highway Operations
- BOS Bureau of Structures
- BPD Bureau of Project Development
- BSHP Bureau of State Highway Programs
- BTLRRH Bureau of Transit, Local Roads, Railroads and Harbors
- BTO Bureau of Traffic Operations
- BTS Bureau of Technical Services
- BTS-EPDS Bureau of Technical Services Environmental Process and Documentation Section
- BTS-ESS Bureau of Technical Services Environmental Services Section
- BTS-RE Bureau of Technical Services Real Estate
- CAiCE Computer-Aided Civil Engineering
- CEF Cost Effectiveness Finding
- CMM Construction and Materials Manual
- CO Central Office
- DBE Disadvantaged Business Enterprise
- DNR Department of Natural Resources
- DPI Dots per Inch
- DSR Design Study Report
- DTIM Division of Transportation Investment Management
- DWD Department of Workforce Development
- EDA Economic Development Administration
- FHWA Federal Highway Administration
- FOIA Freedom of Information Act
- HCCI Highway Construction Contract Information
- HPC Highway Planning Committee
- LFA Local Force Account
- LIP Letting Implementation Plan
- LPA Local Public Agency
- MQ Miscellaneous Quantity
- **OPA Office of Public Affairs**
- PD Project Development
- PD Proposal Development
- PDF Portable Document Format
- PDS Project Development Section
- PLE Permanent Limited Easements
- PLP Proposal Letting Process
- PM Proposal Management
- PPJ Proprietary Product Justification
- PPP Proposal Preparation Process

- $\mathsf{PS\&E}-\mathsf{Plans},$ Specials and Estimate
- QMP Quality Management Program
- QPRR Quarterly PS&E's Received Report
- REPM Real Estate Program Manual
- RHS Railroads & Harbors Section
- ROW Right Of Way
- RRPL Railroad Protective Liability Insurance
- SDD Standard Detail Drawing
- SHA State Highway Agency
- SHRM State Highway Rehabilitation/Maintenance
- SOI Schedule of Items
- SoRD Summary of Review Documentation
- STSP Standardized Special Provision
- TEA Transportation Economic Assistance
- TLE Temporary Limited Easement
- TMP Transportation Management Plan
- USR Utility Status Report

Bureau of Project Development (BPD), Proposal Management Section, Contract Development, & Data Analysis Unit:

Role	Name	Phone Number	Email Address
Addendum, Requests to Change PS&E Date, FasTrak and Late PS&E Requests	Section mailbox	N/A	dotdtsdbpdproposalmanagementsection @dot.wi.gov
Special Provisions Reviewer, STSPs	Rielly O'Donnell	(608) 261-6116	Rielly.ODonnell@dot.wi.gov
Special Provisions Formatting, Assembling Proposals	Cindy Moy	(608) 266-1631	cindy.moy@dot.wi.gov

BPD, Design Standards and Oversight Section, Design Project Oversight Unit:

Region	Name	Phone Number	Email Address
NC	Dan Tyler	(608) 267-7945	daniel.tyler@dot.wi.gov
NE	Gary Corcoran	(608) 264-9426	gary.corcoran@dot.wi.gov
NW	Mike Banaszak	(608) 261-2559	michael.banaszak@dot.wi.gov
SE	Richard Herrick	(608) 266-8495	richard.herrick@dot.wi.gov
SE Mega Projects Design	Will Anderson	(608) 266-8663	william.anderson@dot.wi.gov
SW	Rob Reukema	(608) 267-4496	robert.reukema@dot.wi.gov

BPD, Construction Standards Oversight & Local Program Section, Division Major Projects and Construction Standards Unit:

Role	Name	Phone Number	Email Address
Alternative Contracting	David Pilon	(608) 469-0456	david.pilon@dot.wi.gov
SE Freeways Construction Oversight	Brian DuPont	(414) 940-9652	Brian.dupont@dot.wi.gov

BPD, Proposal Management Section, Proposal Development Unit:

Region	Name	Phone Number	Email Address
NE, NC	Cyle Haag	(608) 266-5563	cyle.haag@dot.wi.gov
SW, NW	Gerald Kintz	(608) 266-8657	gerald.kintz@dot.wi.gov
SE, N-S Fwy	Cyle Haag	(608) 266-5563	cyle.haag@dot.wi.gov

Bureau of Traffic Operations (BTO), Traffic Systems and Management Section, Traffic Systems Unit:

Role	Name	Phone Number	Email Address
Traffic Signals	David Karnes	(414) 220-6804	david.karnes@dot.wi.gov
ITS	Ahmet Demirbilek	(414) 220-6801	ahmet.demirbilek@dot.wi.gov
Electrical	Ahmet Demirbilek	(414) 220-6801	ahmet.demirbilek@dot.wi.gov

BTO, Traffic Engineering and Safety Section, Traffic Design Unit:

Role	Name	Phone Number	Email Address
Marking	Matthew Rauch	(608) 246-5305	matt.rauch@dot.wi.gov
Signing	Jay Hille	Jay Hille (608) 243-5981 jay.hille@dot.wi.gov	
Work Zone	Andrew Heidtke	(414) 322-4185	andrew.heidtke@dot.wi.gov

Bureau of Highway Maintenance, Highway Maintenance and Roadside Management Section:

Role	Name	Phone Number	Email Address
Pre and Post-PS&E, Veg. Management	Mark Polega	(608) 266-6791	mark.polega@dot.wi.gov
Pre and Post-PS&E, Veg. Management	Christa Schaefer	(608) 266-3943	christa.schaefer@dot.wi.gov

Bureau of Technical Services, Environmental Service Section and Environmental Process & Documentation Section:

Role	Name	Phone Number	Email Address
Native Vegetation/Wetlands	Alyssa Barrette	(608) 266-1017	alyssa.barrette@dot.wi.gov
Asbestos/Hazardous Materials	Shar TeBeest	(608) 266-1476	sharlene.tebeest@dot.wi.gov
Archeological Sites	Lynn Cloud	(608) 266-0099	lynn.cloud@dot.wi.gov
Air Quality and Noise	Joel Brown	(608) 261-0137	joel.brown@dot.wi.gov

Utility Example WISCONSIN DEPARTMENT OF TRANSPORTATION Thing Rusiness Search | Log Off



ID: 5100-07-71	Contract ID: 20131112004	Contract Type: LET	FHWA Oversight: NO	SWB Cleared: No
Title: CASHTON-ONTARIO	Federal ID: WISC 2013458		County: MONROE	Region Cleared: No
Limits: CASHTON ELY TO BRUSH CREEK BRIDGE	Concept: RECONDITION	Route: STH 33	Status: A	PSE Date: 05/01/2013
Manager: VANDER WIELEN, ANTHO	Supervisor: GREGAS III, JOSEPH A	Leader		

Back Edit

Subject Area:	UTL
Subject	UTLs not acquired
Author:	Gary Jackson
Add Date:	04/29/2013
Note:	There have been some late plan changes that require utility redesign and cost revisions to 2 utility estimates. Time has also been included for DOT CO Utility Section review time. All parcels are expected to be acquired by 6-28-13. Gary Jackson 4-26-13.

Questions about the content of this page:

Contact Name : WisDOT Computer Help Desk 1-800-362-3050

UTL Exceptions





Back to Project Details

ID: 5100-07-71	Contract ID: 20131112004	Contract Type: LET	FHWA Oversight: NO	SWB Cleared: No
Title: CASHTON-ONTARIO	Federal ID: WISC 2013458		County: MONROE	Region Cleared: No
Limits: CASHTON ELY TO BRUSH CREEK BRIDGE	Concept: RECONDITION	Route: STH 33	Status: A	PSE Date: 05/01/2013
Manager: VANDER WIELEN, ANTHO	Supervisor: GREGAS III, JOSEPH A	Leader:		

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ID: 1060-33-72	Contract ID: 20130910002	Contract Type: LET	FHWA Oversight: YES	SWB Cleared No
Title: ZOO IC, WATERTOWN PLANK INTERCHANGE	Federal ID: WISC 2013420	Region: SE	County: MILWAUKEE	Region Cleared No
Limits: WATERTOWN PLANK INTERCHANGE	Concept CONST/BRIDGE REPLACEMENT	Route: USH 45	Status: A	PSE Date: 05/01/2013
Manager: FLIERL, KURT G	Supervisor: ROSELLE, JASON M			

Note:	Parcels to acquire. Final USR required. JD 7/9/2013
Add Date:	07/09/2013
Author:	Julie DeBauche
Subject	Parcels to acquire, final usr required
Subject Miea.	

Questions about the content of this page:

Contact Name : WisDOT Computer Help Desk 1-800-362-3050

UTL Exceptions

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Title: ZOO IC, WATERTOWN PLANK INTERCHANGE	Federal ID: WISC 2013420	Region: SE	County: MILWAUKEE	Region Cleared: No
Limits: WATERTOWN PLANK INTERCHANGE	Concept: CONST/BRIDGE REPLACEMENT	Route: USH 45	Status: A	PSE Date: 05/01/2013
Manager: FLIERL, KURT G	Supervisor: ROSELLE, JASON M	Leader:	-10	

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Real Estate Examples

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PROJECT LETTING PROCESS FOR FISCAL YEAR "X"

Fiscal Year	Month	EVENTS
"X minus 2"	May	Start Development of Preliminary LIP for FY "X."
	June	
"X minus 1"	July	Jul 15: Preliminary LIP for FY "X" due in CO.
	August	
	September	
	October	Oct 1: LIP for FY "X" completed.
	November	
	December	
	January	Feb 1: PS&Es for May and June of FY "X minus 1" and July of FY "X" due in CO.
	February	
	March	
	April	
	May	May 1: PS&Es for August, September, and October of FY "X" due in CO.
	June	
"X"	July	
	August	Aug. 1: PS&Es for November, December, and January of FY "X" due in CO.
	September	
	October	
	November	Nov. 1: PS&Es for February, March, and April of FY "X" due in CO.
	December	
	January	
	February	Feb. 1: PS&Es for May and June of FY "X" and July of FY "X plus 1" due in CO.
	March	
	April	
	May	
	June	
"X plus 1"	July	

This table shows only those events associated with a hypothetical fiscal year "X." Activities for the previous year and subsequent year would overlap into this schedule.

Error! Bookmark not defined. Dat e	Activity	Responsibility		
By 5/1	Establish annual FY program levels	HPC & BSHP*		
By 5/1	Publish statewide and region program levels and advise regions to adjust their programs accordingly.	PLP Committee		
Start 5/1	Adjust programs to match authorized levels	Regions		
By 6/1	Establish local programs	BSHP		
6/1 - 7/15	Verify project delivery schedule. Based on PS&E ready date assign project to month and quarter to be let. Verify cost estimate. Verify major quantities.	Regions		
By 7/15	Schedules copied	BSHP & Regions		
	Submit preliminary LIP to CO committee			
7/15 - 9/1	Compile monthly and quarterly let list, costs and quantities. Verify compliance with monthly and quarterly targets. Verify funding availability. Determine need for revisions.	PLP Committee		
9/1 - 10/1	Solicit needed revisions and revise schedules to meet/satisfy various goals.	PLP Committee & Regions		
By 10/1	Establish and publish LIP	PLP Committee		

SCHEDULE FOR ESTABLISHING ANNUAL (LIP)

Sample Letting Restriction List

Date: 04/30/96 From: To: David Dettmann DETIMD - HFRC Subject: Letting Restriction List, Dist projects that must be restricted to a This list identifies certain FY particular letting and provides the reason for the restrictions. Project Month of ID # Reason for the Restriction (see below) Letting ____ _____ Jan '97 #1 XXXX-XX-XX Feb '97 YYYY-YY-YY #4 Feb '97 #5, road must be open before school year starts. ZZZZ-ZZ-ZZ ------_____ #1 = Latest date to permit construction completion in calendar year. #2 = Project sequencing; future projects depend upon timing of this one. #3 = Provides lead time for delivery of steel or other materials. #4 = Construction time for delivery of steel or other materials. #5 = Permit opening to traffic by key date (explain). #6 = Local commitments (explain). #7 = Other (explain).

QUARTERLY AND CUMULATIVE MONTHLY GOALS

	Allowable Range		
Letting Month	Percent of Annual Let Goal	Example based on \$1 Billion Annual Let Goal (in Millions)	
July	-2 - 12%	\$20 - 120	
August	4 - 16%	\$40 - 160	
September	6 - 20%	\$60 - 200	
October	12 - 24%	\$120 - 240	
November	24 - 35%	\$240 - 350	
December	39 - 49%	\$390 - 490	
January	52 - 62%	\$520 - 620	
February	66 - 73%	\$660 - 730	
March	80 - 87%	\$800 - 870	
April	87 - 93%	\$870 - 930	
Мау	93 - 97%	\$930 - 970	
June	99 - 101%	\$970-1010	

FDM 19-1 Attachment 5.1 Example DT1584 Patented or Proprietary Product Justification

PATENTED OR PROPRIETARY PRODUCT JUSTIFICATION

Wisconsin Department of TransportationDT15849/2020

By signature of this document	, the State official is certifying that in accordance with the requirements of FDM 19
1-5 this patented or proprietary	/ item is:

Essential for synchronization (See 19-1-5.2.1)

No equally suitable alternative exists (See 19-1-5.2.2)

Specified product is deemed to be in the best interest of the public (See 19-1-5.2.3)

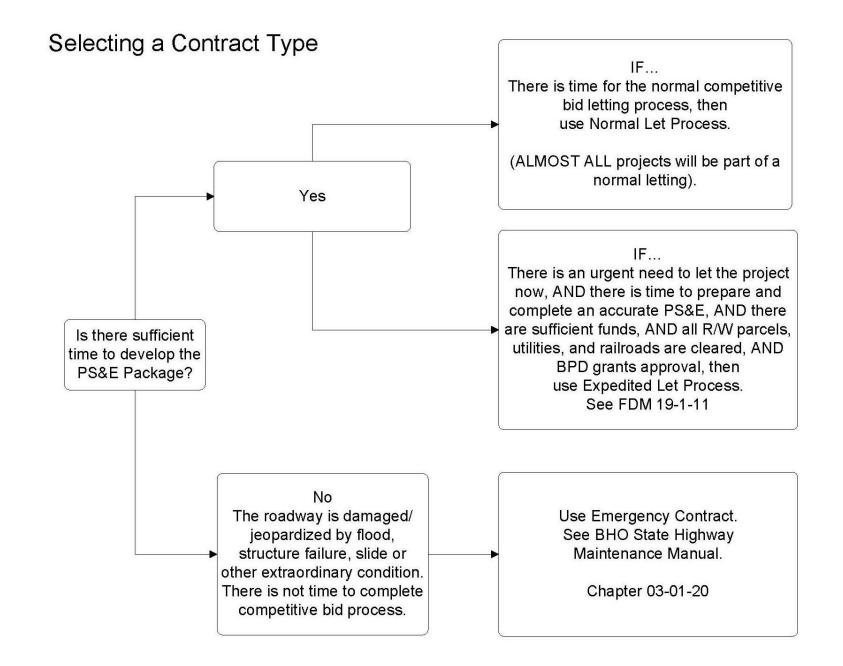
Research (See 19-1-5.2.4)

Duration	Project Specific Information
🛛 Project Specific	Project ID and Title
Statewide Certification (5 yrs maximum)	
Specify dates: From:	
To:	

Product(s)/Material(s) and Name of Manufacturer:

Product Justification (Provide a short description of the justification for the proposed proprietary application in the context of FDM 19-1-5.2. Use no more than the space below, min. 9pt. font):

Region Chief for region non-local project <u>or</u> Region Project Manager for region local program project <u>or</u> Bureau Chief for Statewide: (signature)	Name	Date





FDM 19-5-1 General

This section is intended to provide guidance for the user on process and procedures for preparing, documenting, and checking an estimate, developing a proposal, and submitting it for PS&E. For mega project estimating, refer to the <u>Mega Project Guidelines Webpage</u>.

FDM 19-5-3 Bid Item Guidance

November 15, 2022

December 5, 2017

This procedure establishes guidelines for the proper use of bid items. The goal is to obtain uniformity in bidding practices and to use the right bid item correctly for a given situation.

See the standardized special provisions (STSP) page for guidance and recent changes to the STSPs.

3.1 Updated/Newer Bid Items

The following guidance highlights new or changed standard specifications bid items. The items highlighted below do not include all new items. The changes are effective with the August 2022 PS&E submittal.

Lump Sum Measurement: Lump Sum measurement has been removed from the 2023 **standard specifications.** Bid items previously measured as a Lump Sum have new numbers and are now measured by the EACH.

Temporary Pavement Marking: Standard Spec 649 has been removed. Temporary marking items have been moved to 643.

Temporary Pedestrian Detectable Warning Field, Item 644.1605: New item for temporary warning fields. Use at temporary pedestrian street crossings.

Construction Staking Sidewalk, Item 650.9500: New item for staking sidewalk. Include with any quantity of sidewalk. If staking needs are minimal, contractors should bid accordingly. The item is measured by the Project. Quantity will = 1 per project.

3.2 Usage Guidance for Other Items

Excavation and/or Backfill: Excavation and backfill beyond what is normally required to accommodate the structure, formwork, and construction operations is excess excavation and backfill. Minor amounts of excess excavation and backfill can be treated as incidental to the Excavation for Structures bid items. Significant amounts of excess excavation and backfill should be paid for separately under other contract excavation and backfill bid items. Add excavation and backfill bid items to contracts that do not already have the appropriate bid items to cover excess excavation and backfill. Determine the quantities for excess excavation and backfill and include those quantities in the amount shown on the miscellaneous quantities sheet for the affected bid items.

Removing Concrete Pavement, Item 204.0100: If the removal is to an existing joint or if sawing is required it should be noted on the plans. Concrete pavement removed in conjunction with Roadway and Drainage Excavation will be measured and paid for as Removing Concrete Pavement.

Removing Concrete Pavement Butt Joints, Item 204.0105 and Removing Asphaltic Surface Butt Joints, Item 204.0115: Removing Pavement Butt Joints is to be used on concrete pavement. Removing Asphaltic Surface Butt Joints is to be used on asphalt pavement. Always include a construction detail with these items indicating the pay limits of removal. Sawing is included if contractor methods necessitate it to meet the standard specification.

Excavation Rock, Item 205.0200: When rock is apparent within project limits but is not anticipated to be encountered within the excavation limits, do not include it as a bid item. The boring or sounding information should be shown on the plan but do not show extrapolated rock profiles or cross sections. When the designer is aware of the presence of rock which is apparently outside the excavation limits, there are several alternatives

available:

- Perform adequate soundings to verify the rock limits, so an accurate determination can be made whether rock excavation is or is not going to be required.
- Perform adequate soundings as above, then adjust the gradeline to avoid rock excavation entirely.
- When, in the judgment of the designer, the available information is deemed adequate to determine that rock excavation will not be required, place a statement in the plan General Notes that indicates there is reason to believe rock is present within the project limits, but outside the proposed excavation limits, and this information is contained in the district project files.

When rock excavation is known to be required, it shall be included as a contract bid item. Keep in mind that shallow rock cuts or small quantities cost more on a unit basis than deeper cuts, or larger quantities. When such is the case, as when rock is encountered in a ditch line only, the designer must determine whether the ditch can be altered to avoid rock cut, or if the ditch is even necessary.

Prepare Foundation for Asphaltic Paving (EACH), Item 211.0101: This item shall be included in contracts meeting one of the following criteria:

- Asphalt pavement is being constructed over existing concrete pavement, over existing asphaltic pavement, or over existing base course shoulders. NOTE: When existing base course shoulders are to be included under this item, clarify this for the bidders by either showing the transverse width of the preparation item via a dimension line going to the outside edge of the base course shoulders on the Typical Finished Sections or by noting this in a special provision article.
- Asphaltic pavement is being constructed under a separate contract from the base layers.
- Through traffic will be using the completed base layers
- Existing asphaltic surface is salvaged full depth and there is no base aggregate item in the contract.
- Existing asphaltic surface is salvaged or removed by milling and carries traffic on milled surface.

A Miscellaneous Quantity listing should be included in the plan to clarify to all bidders the Sta. – Sta. limits, or locations where this item applies.

Prepare Foundation for Asphaltic Shoulders (Stations - per side of the roadway), Item 211.0400: Include this item in contracts where an asphaltic shoulder is being constructed or widened adjacent to an existing asphalt or concrete pavement and requires the excavation of the existing crushed aggregate shoulder prior to placement of the asphaltic shoulder. This item also includes the reconstruction of the base shoulder using the excavated base course material, after the new asphalt shoulder is paved. NOTE: Excess shoulder base course material that can't be bladed to a nearby shortage area along the roadway can be trucked to a shortage area by use of item 305.0504.S, "Hauling Excess Shoulder Material" by the CY.

Shaping Shoulders (Stations - per side of the roadway), Item 305.0500: Include this item in contracts where it is necessary to blade the existing crushed aggregate shoulder away from the existing pavement and then reshape the shoulders to the desired cross section. NOTE: Excess shoulder base course material that can't be bladed to a nearby shortage area along the roadway can be trucked to a shortage area by use of item 305.0504.S, "Hauling Excess Shoulder Material" by the CY. Shaping Shoulders bid item is not needed to maintain drainage for milling, or pulverizing operations as standard specification for those items address maintaining drainage. Generally, Shaping Shoulders is not needed on projects where new base aggregate is being placed on existing shoulders.

Shaping Roadway (Stations – per centerline of the roadway), Item 305.0502.S: This item is to be used where all the existing pavement is to be salvaged or removed and the remaining base course shoulders are to be graded and shaped across the whole roadway to prepare a foundation template for new asphalt pavement.

Base Aggregate Dense, Breaker Run, Select Crushed Material, Pit Run and Backfill Granular Conversions, Items 305.0110, 305.0120, 305.0130, 310.0110, 311.0110, 312.0110, 313.0110, 209.0100 and 210.0100: To gain additional consistency in estimates, the following statewide conversion factors are provided for granular materials. Designers are to use values within the conversion factor ranges of Table 3.1 The conversions are based on Region experience and are for compacted material.

Bid Item Number	Material Bid Item Name	Conversion Factor (Tons/Cubic Yard)
305.0110	Base Aggregate Dense 3/4-Inch	1.75 - 2.1
305.0120	Base Aggregate Dense 1 1/4-Inch	1.75 - 2.0
305.0130	Base Aggregate Dense 3-Inch	1.75 - 2.2
310.0110	Base Aggregate Open Graded	1.6 - 1.9
311.0110	Breaker Run	1.7 - 1.8
312.0110	Select Crushed Material	1.7 - 1.9
313.0110	Pit Run	1.6 - 1.8
209.0100	Backfill Granular (Grade 1 or 2)	1.5 - 1.7
210.0100	Backfill Structure (Grade A or B)	1.75 - 2.0

Table 3.1 Compacted Aggregate Conversion Factors

Base Patching, Items 390.0103 - 390.0403: All the "Base Patching" items (per the WisDOT Standard Specifications) are for patching existing concrete pavement that will be overlaid with new pavement. The work for Base Patching includes 1) pavement removal, including removal of any asphaltic overlays and 2) replacement of the removed pavement with either concrete or asphaltic pavement. The standard Base Patching items are:

- "Base Patching" (390.0103 SY) allows the contractor the option of using either concrete or asphalt for replacement of the removed existing concrete pavement.
- "Base Patching Asphaltic" (390.0201 Ton or 390.0203 SY) allows only asphaltic pavement to be use for replacement of the removed existing concrete pavement.
- "Base Patching Concrete" (390.0303 SY) allows only concrete to be used for replacement of the removed existing concrete pavement.

Base Patching Concrete SHES, Item 390.0403: This item uses SHES concrete to allow sooner opening of traffic for replacement of the existing concrete pavement to be overlaid with new pavement. Open to traffic as specified for concrete base in <u>Standard Spec 320.3</u>.

Coloring Concrete: When specifying the standard WisDOT red colored concrete use item 405.0100 Coloring Concrete WisDOT Red. Other colors will require using item 405.0200 Coloring Concrete Custom and STSP 405-020 to specify the color and pigment load. The region will need to have comparison samples for each color available to the contractor for viewing at the region office.

Concrete Pavement Gaps, Item 415.0210: The use of paving gaps should be minimized; however, if the designer determines they are necessary they shall be shown on the plan and profile sheets and listed in the miscellaneous quantities. If the staging requires multiple gaps at one roadway location include a quantity for each gap.

Concrete Truck Apron 12-inch, Item 416.0512: Use this bid item for the concrete truck aprons. Include bid item 405.0100 - Coloring Concrete Red when specifying roundabout truck aprons.

Concrete Rumble Strips Intersection, Item 416.1180: Use this bid item on projects requiring concrete rumble strips on approaches to intersections. For rumble strips inlaid into existing HMA or concrete pavement include a Concrete Pavement Replacement or Concrete Pavement Replacement SHES bid item.

Hot Mix Asphalt (HMA) Cold Weather Paving, Item 450.4000: The intent of the Department is not to pave asphaltic material during cold weather. The proposed construction schedule outlined in the design contract time for completion (refer to <u>FDM 19-10-30</u>) should not indicate asphalt paving within the locations and during the timeframes outlined below.

However, due to project or community needs, changes in construction schedule, emergencies, and weather variability there will be situations where the Department allows the contractor to pave during cold weather.

Include the HMA Cold Weather bid item when the contractor will likely place asphaltic pavements under <u>standard spec 460</u>, <u>standard spec 465</u> and related special provision items when the ambient temperature is less

than 40 degrees Fahrenheit. To estimate when cold weather paving may occur use the following locations and timeframes. Refer to <u>FDM 14-10 Attachment 10.5</u> for asphalt zones.

- in the WisDOT Northern Asphalt Zone from September 15 through June 1, or
- in the WisDOT Southern Asphalt Zone from October 1 through May 15.

Unless the designer can determine the quantity more accurately, estimate 25 percent of the asphaltic pavements placed within the above-mentioned timeframes or less than 40 degrees Fahrenheit under the HMA Cold Weather Paving bid item.

For example, a project located in the Southern Asphalt Zone anticipates that they will be placing a total of 30,000 tons of HMA Pavement Type MT. The design contract time for completion indicates that 10,000 tons will be placed after October 1st. The designer would estimate 2,500 tons (10,000 tons x 25%) as the HMA Cold Weather Paving.

In extreme cases, STSP 450-010 should be used on a project-by-project basis and approved by FHWA. It must be included for those projects that have paving occur within the following:

- in the WisDOT Northern Asphalt Zone from November 1 through April 15, or
- in the WisDOT Southern Asphalt Zone from November 15 through April 1

This can happen by design, during construction as an excusable compensable delay, or by request of the contractor. Paving station limits must be identified. The STSP is only to be used for traffic control, temporary pavements or in emergency situations. Permanent pavement is not to be construed under this STSP.

In addition, designers should consider carrying over portions of the asphalt paving to the following season. Particularly if a project schedule requires a significant amount of late season, or cold weather paving. Designer can use a special provision (SPV) to pave the final layer of asphalt the following construction season.

Several factors play into whether a project should consider paving the final layer the following year, including:

- Existing pavement structure: Would the lower layers of asphalt placed this season be sufficient to support traffic over the winter season? Designers need to consult with the region pavement engineer.
- Soil conditions: Are there poor soils, and therefore an increased risk of sections of pavement needing repair the following year before paving the surface layer?
- Maintenance and cost responsibility: Consider work zone traffic control, detours, temporary and permanent signage, drainage, erosion control, business and pedestrian accommodations, etc. Who will maintain and repair these items over the winter season and who will pay to repair and replace? For example, if there are inlets, manholes or other structures that will require ramping, who would maintain these temporary items and who would pay to repair or replace?
- Business and local resident impacts: Are there reasons that carrying over would cause undue burden to the businesses or local residents? Do these business and local impacts override constructing a better-quality surface the following paving season?
- Project schedule impacts: Are there reasons that carry over of this project would cause problems with the staging of other projects? Does the need to complete this project due to another project staging override a better-quality surface the following paving season?

There may be additional considerations, but these are some items to think about when considering using an SPV to carry over the construction project to the following construction season.

HMA Pavement Percent Within Limits (PWL): For guidance on the use of the PWL specs, refer to <u>FDM 19-</u> <u>21-5.2.4</u> and consult with the region Pavement Engineer.

Asphaltic Surface Patching, Item 465.0110: A quantity of Asphaltic Surface Patching should be included on all asphaltic pavement resurfacing contracts that are open to traffic. This will provide the contractor with a means to make minor repairs (i.e. - filling potholes or pop outs that occur under traffic handling and for ramping as directed by the engineer at saw cut match-in joints prior to the asphaltic pavement overlay being constructed). Also, provide a "Remarks" column on the MQ table and explain the intended purpose of each undistributed estimated quantity shown.

Ice Hot Weather Concreting (for Hot Weather Paving Concrete Structures), Item 501.1000.S: As outlined in <u>Standard Spec 501.3.8.2</u>, the contractor is responsible for the quality of concrete placed in hot weather. The contractor must utilize ice or other means to control the concrete temperature in hot weather. Use the following design guidance to determine when and estimate how much ice to include when project includes pouring concrete structures during hot weather.

Include Ice Hot Weather Concreting, Bid Item 501.1000.S in the structure plan when:

- 1. The structure contract utilizes any quantity of High-Performance Concrete (HPC) masonry structures or,
- 2. The combined contract quantity of the items listed in <u>Standard Spec 501.3.8.2.1(2)</u> is 2,000 CY or more, and
- 3. The placement of the above-mentioned items is between June 15th and August 15th.

Use the following equation to estimate the quantity of ice for hot weather concreting structures:

Ice (lbs) = (15%) x (Concrete Quantity CY) x (50 lbs/CY)

Curb and Gutter: When curb and gutter is built under a separate contract from the grading work, the designer shall specify who is responsible for backfilling the two feet behind the curb and gutter.

Reconstructing Catch Basins, Manholesor Inlets; Adjusting Catch Basin, Manhole, or Inlet Covers; Salvaged Manhole or Inlet Covers:

- Use the bid items Reconstructing Catch Basins, Reconstructing Manholes, or Reconstructing Inlets for any situation requiring an existing drainage structure to be, reconstructed, adjusted more than twelve inches, or if the adjustment requires removal beyond adjusting rings or shims.
- Use the bid items Adjusting Catch Basin Covers, Adjusting Manhole Covers, or Adjusting Inlet Covers when the existing frame and cover will be reused on the existing drainage structure and an adjustment of twelve inches or less is required. (If a new cover is supplied, adjustment is included in the cost of the new cover)
- Use the bid items Salvaged Manhole Covers or Salvaged Inlet Covers when the existing cover is to be removed, stored elsewhere on site, then later reinstalled. (If adjustment is required when reinstalling, the cost for adjustment is included in salvaging)

Barrier System Grading and Shaping Finishing, Item 614.0010: Use this item when there is no other grading, shaping and finishing work in the area of the barrier system. For work within the grading limits, or if there is other spot grading and finishing in the project the work should be paid for under other contract items (excavation, borrow, topsoil, seed, emat, etc.).

Maintenance and Repair of Haul Roads, 618.0100: This is required on all projects on the State Trunk Highway System, except projects within city limits where the existing truck traffic makes it too difficult to determine pavement damage by haul road trucks, and where the city already has a roadway maintenance program. The item may be used on Local Program projects if the item is 100% locally funded.

Mobilization, 619.1000: This is required on all contracts. Contracts with multiple projects shall have one bid item prorated between projects.

Culvert Pipe Checks, 628.7555: This item is measured and paid by the individual bag used, not by specific location.

Signs Type I (reflectivity), Item 637.1000-1999, Signs Type II, Items 637.2000-2999, and Signs Type III, Items 637.3000-3999: Refer to the Sign Code and Sign Plate manuals to determine the type of reflective sheeting for sign.

Traffic Control Covering Signs Type I, Item 643.0910 and Type II, Item 643.0920: Use these items to cover conflicting permanent type I and type II signs during construction. Indicate in the miscellaneous quantities which signs are to be covered and include a quantity for each time the sign will be covered and uncovered throughout the project. Refer to <u>FDM 11-50-21.1.1</u> for further guidance.

Traffic Control, 643.5000: Include this item in all projects with any traffic control work. In contracts with multiple projects, prorate the quantity so the contract total equals one (1).

Cold Weather Marking Epoxy, 4-Inch Item 646.6464. and 8-Inch Item 646.6468.: Include bid item for late season marking on all projects projected to be completed when the ambient or pavement temperature is less than 50°F typically after October 1.

Construction Staking: Consider the time a contractor will need to perform initial staking. Ensure that there is

adequate time available after contract execution to complete the initial staking and subsequent contract work within the prescribed contract time. Give large grading projects and projects let late in the year careful consideration. To estimate the contract execution date, assume the contract will be executed approximately 6 weeks after the let date.

If a project's letting date is delayed and the contract includes initial staking, reevaluate whether the contractor will have ample time to complete initial staking and subsequent contract work within the prescribed contract time.

If determined that the contractor will likely be unable to complete the supplemental project survey control, slope staking and subsequent contract work within the prescribed contract time, consider utilizing the survey services of one of the following:

- State or consultant forces.
- Consultants administering or providing support on the project.
- Consultant under surveying master contract.

Construction Staking, Storm Sewer System, Item 650.4000	Include in projects where storm Sewer is being placed and contractor staking is used
Construction Staking, Subgrade, Item 650.4500	Include on grading projects. Item may be added for a dense base contract where the grading was done in previous contract and needs to be rechecked before placing dense base.
Construction Staking, Base, Item 650.5000	Include on base aggregate and asphalt projects. Do not include this item when concrete pavement is being constructed in same contract. Concrete pavement staking covers staking dense base and open-graded base.
Construction Staking, Curb, Gutter, Curb & Gutter, Item 650.5500	This item is for asphalt roadways. Use this item if there is 50 L.F. (15 m) or more of curb and gutter required. Do not include this item with concrete roadways. Do not use this item for staking curb and gutter in rural intersections on resurfacing projects.
Construction Staking, Pipe Culvert, Item 650.6000	Include on projects for staking culvert pipe cross drains. Do not include item for field or private entrance pipes.
Construction Staking, Structure Layout, Item 650.6501	Include in projects for stakeout of structures, box culverts, retaining walls, and sound walls.
Construction Staking, Concrete Pavement, Item 650.7000	Include on concrete paving projects. This item includes staking of dense and open graded base course Construction Staking, Subgrade is not included in this item and should be included as a separate item in the contract if grading is completed within the contract prior to placing concrete pavement.
Construction Staking, Concrete Barrier, Item 650.7500	Include in projects where large quantity is involved. Do not include this item if concrete barrier abuts concrete pavement.
Construction Staking, Resurfacing Reference, Item 650.8000	Include in resurfacing or pulverizing projects
Construction Staking, Electrical Installations, Item 650.8501	Include in all projects where large quantity is involved. Consider not using where numerous installations need field adjustment or plan does not have layout information available.
Construction Staking, Curb Ramps, Item 650.9000	Include in all projects where individual curb ramps have location-specific layout information that includes elevations in the plan details. Standard Detail Drawings (SDD) are not considered layout information. Do not use pay item on any individual curb ramp that does not have layout information.
Construction Staking, Sidewalk, Item 650.9500	Include on all projects whenever the contract contains a sidewalk bid item.
Construction Staking, Supplemental Control, Item 650.9911	Include in all projects where contractor staking is used.
Construction Staking, Slope Stakes, Item 650.9920	Include on all grading projects when the department is not performing slope staking.

NOTE: When two or more roadways occur, construction staking subgrade, crushed aggregate base course, concrete pavement, resurfacing reference, and slope stakes will be measured by the linear foot along the centerline or reference line of each roadway.

Temporary Diversion Channels: To construct concrete box culverts, structural plate pipes or structural plate pipe arches, it is sometimes necessary to construct temporary diversion channels to maintain drainage. If a temporary diversion channel is required, bid items for all work to be performed for the construction and removal of the channel shall be included in the contract.

If the channel is optional, work will be considered incidental to the bid item of Excavation for Structures. Only the bid items for erosion control shall be paid for separately.

3.3 Quantities

Accurately estimating quantities can influence contractor bidding and construction administration and is important to minimizing contract over/under runs. Ensure someone has reviewed miscellaneous the project

quantities. A good estimate cannot be accurate with errors in the quantities. The quantity reference table (<u>Attachment 3.1</u>) list references for calculating items.

Information on the goals and reporting of the quantities performance measure can be found on the DTSD performance management page under the Project development functional area.

Follow region procedures for entering quantities into FIIPS. DOT Staff can refer to the project management manual (PMM) 05-10-15. <u>Attachment 3.2</u> or a similar form can be used to report quantities to the region.

3.3.1 Undistributed Quantities

Use of undistributed quantities should be minimized in all contracts. Bid item quantities which can be calculated based on the design such as pavements, storm sewer, curb and gutter, etc. shall not include undistributed quantities. The existing project site could potentially impact the quantities estimated for the project. Section 104.2.2.4.3 Changed Quantities was added to the Standard Special Provisions to address potential variations between the estimate quantities and the measured quantities. If estimated quantities exceed established parameters outlined in Section 104.2.2.4.3 WisDOT or the Contractor may request a cost adjustment.

There are a limited number of bid items for which irregularities in the existing topography can impact the ability to provide an accurate estimated quantity. In these situations, designers may provide and undistributed quantity to correctly quantify the anticipated quantity of work.

Examples of these items are:

- topsoil
- seeding
- sodding
- erosion mat
- erosion bales
- mulching
- silt fence

Some contract items may involve multiple methods of construction. The cost to perform the different methods of construction may vary. The unit costs for these types of items are typically referred to as blended prices. If it is necessary to add undistributed quantities to a bid item with a blended price evaluate the item carefully to ensure work in areas with higher construction costs are identified.

3.3.2 Rounding Quantities

Round quantities to the number of decimal places justified by the data. Quantity table totals must match the Estimate of Quantities Sheet. Consider the following guidance when rounding:

- Use the same rounding methodology for a bid item in multiple projects or categories.
- Rounding should only be done once in a quantity table.
- If you choose to round the total, the summation of line items must match the quantity table subtotal.
- Plan quantities should never be more exact than can be measured in the field.
- Clearly defined and measured items should not be rounded or rounded to the lowest quantity range of <u>Table 3.3.</u>
- The use of partial units is discouraged. However, partial units may be used for items measured by acre, mile (MI), or hundredweight (CWT). Partial units may also be used for items such as signs (SF) or beam guards (LF) due to the method of measurement for the items.
- If not directly stated in Table 3.3, round precision to the leading three numerical digits. For instance, 23,576 SY of erosion mat should be rounded to 23,600 SY.

FDM 19-5 Estimates

Table 3.3 Guide for Rounding Quantities

				QUA	ANTITY RA	NGE	
	UNIT	0-10	10- 100	100- 1,000	1,000- 10,000	10,000- 50,000	OVER 50,000
"Each" and "Station" Items	EA, STA	1	1	1	1	-	-
Clearing and Grubbing	IN DIA	1	1	10	10	100	-
Clearing and Grubbing	ACRE	0.01	0.1	1	10	-	-
Removals	SY, LF, CY	1	1	10	10	100	-
All Excavation/ Granular Backfill	CY	1	1	10	10	100	100
Granular Subbase Course	CY, TON	1	1	10	10	100	-
Asphalt Stabilized Base Course/Shoulders	SY	1	10	10	100	100	1,000
Base Aggregate Dense	CY, TON	1	1	10	10	100	100
HMA and Concrete Base Courses/Surfaces	TON, SY	1	1	1	10	10	-
Concrete Surface Drains/Mortar Rubble Masonry	CY	0.1	1	1	-	-	-
Concrete Masonry	CY	1	1	1	1	1	1
Prestressed Girder	LF	1	1	1	1	1	1
Bar Steel Reinforcement	LB	10	10	10	10	10	10
Structural Steel/Plates	LB	1	1	10	10	10	100
Timber & Lumber	MBM	0.01	0.1	1	-	-	-
Piling	LF	5	5	5	5	5	5
Sheet Piling	SF	1	1	1	10	10	100
Culvert Pipe/Pipe Cattle Pass	LF	2	2	2	2	-	-
Structural Plate Pipe	LF	2	2	2	2	-	-
Concrete Sidewalk	SF	1	1	10	10	100	-
Slope Paving	SY	1	1	1	1	1	1
Riprap	CY	1	1	1	-	-	-
Storm Sewer Pipe	LF	1	1	1	1	-	-
Calcium Chloride, AG Lime, Mulching	TON	0.1	1	1	-	-	-
Erosion Control Items	SY, LB	1	1	10	10	100	100
Fertilizer	CWT	1	1	10	-	-	-
Signs	SF	0.01	0.01	0.01	0.01	0.01	-
Drill Holes, Well Casing Pipe	LF	1	1	10	-	-	-
Water	MGAL	0.1	1	10	100	-	-
Locating No-Passing Zones	MI	0.01	0.1	1	-	-	-

LIST OF ATTACHMENTS

Attachment 3.1 Attachment 3.2 Quantity Reference Table FIIPS Quantities Update Form

FDM 19-5-5 Construction Estimates

The construction estimate is made up of unit cost and quantity for each bid item. Accuracy of each component influences the highway program by reducing uncertainty of funding and scheduling, as well as providing a benchmark for comparing bid prices.

WisDOT program stability relies on accurate estimates. Project schedules are based on the estimated cost of a project. WisDOT balances project-specific parameters during the fiscal year to ensure proper workloads and spending between regions, contract type (concrete, asphalt, structures), and funding sources. An accurate estimate allows WisDOT to make the best decisions with available funding.

- Estimates that are higher than the low bid may initially seem beneficial for the department, however, the savings is usually spent on projects that are designed on an accelerated schedule and may be constructed earlier than needed based on the service life of the roadway.
- Estimates that are lower than the low bid require extra funding and may result in rejecting the project or requiring WisDOT to delay work on other projects.

The estimate is a benchmark for reviewing the contractor's bid prices. Bids are analyzed before contracts are awarded to determine if the bids are acceptable. Bids compared with accurate estimates allow for straightforward bid analysis of the contract. Discrepancies between the bid and estimated prices require examination to determine the accuracy of both the estimate and the bid prices.

Designers are expected to produce a good estimate for each life cycle of the project. Update construction estimates regularly and at each life-cycle change depending upon region policy. Major items are recommended to be updated every six months, and the entire estimate needs to be updated annually. Early PS&E or advanceable projects need to be updated at the time of advancement or actual programmed PS&E.

A good estimate is thorough, reasonable and justifiable. It is developed using published department practices by an individual with the proper training; that is documented providing the parameters, assumptions and supporting information for the quantity and unit price determinations; and that is reviewed by an independent, third party who is also properly trained.

<u>Attachment 5.1</u> Construction Estimate Development Overview provides estimating guidance discussing significant items and estimate documentation. This document assists with outlining the steps and recommendations for developing construction estimates.

FDM 19-5 construction estimate guidance is based upon The Practical Guide to Cost Estimating, 1st Edition. The guide is an AASHTO publication that focuses on cost-estimating techniques. WisDOT employees may borrow a copy from region program controls or through the WisDOT library. Copies of the guide may be purchased from the AASHTO Store.

5.1 Confidential Construction Estimates

A construction estimate is always confidential, and the contractor's bid tab information is confidential until after the proposal is awarded. The release of this information may compromise the integrity of the competitive bidding process between the contractors and the Department. Individuals that knowingly release this information may be subject to discipline. Review the <u>confidentiality memo</u> at the <u>Estimating Webpages</u> for more information.

Before award, local participating agencies that fund a portion of a project may see construction estimate totals and general bid and estimate comparisons. This helps with their decision to move forward with the award of that project. There is risk sending confidential project costs to local participating agencies, because reports and minutes containing confidential project costs may become part of an open records request or posted online.

5.2 Estimate Accuracy Performance Measure

Estimate accuracy is measured by one FHWA standard and two WisDOT standards:

- 50% of the estimates will be within 10% of the low bid (FHWA).
- 60% of the estimates will be within 10% of the low bid (WisDOT).
- 75% of the estimates will be within 15% of the low bid (WisDOT).

The Engineer Estimate Accuracy Performance Measurement measures estimate accuracy, which is available on the <u>Estimating Performance Measures Webpage</u>, DTSD performance management page under the Project development functional area or the <u>WisDOT MAPPS Page</u>.

Estimate accuracy report percentages use the low bid as the denominator, and the justification emails discussed in <u>FDM 19-5-7</u> use the estimate as the denominator.

All new consultant contracts will include a component to evaluate a designer on estimate development and quality.

5.3 Estimating User Group

The objective of estimating user group is to review, develop and recommend WisDOT procedures and best

practices on cost estimating for projects. Under the leadership of the Proposal Management Section in the Bureau of Project Development, this includes cost estimate training, maintaining the Estimating Webpages and maintaining most of <u>FDM 19-5</u>.

- Estimating User Group Members

5.4 Estimate Types and Components

The department uses bid-based estimating for preliminary and final construction estimates. Bid-based estimating uses historical bid data to develop estimates.

Preliminary and final construction estimates are developed from the Project Initiation Phase to the Project Delivery Phase and may be revised at the start of the Project Proposal Execution Phase in LC20 during plan revisions or addenda (FDM 3-1 Attachment 1.1).

- Preliminary construction estimates include elements that are not yet fully defined, such as allowance items. Preliminary estimates are comprised of the following item types, and these item types are defined in the following sections.
 - Allowance items
 - Contingency item
 - Standard bid items
 - STSP bid items
 - SPV items
- Final construction estimates should not contain any allowance items and are comprised of the following item types:
 - Standard bid items
 - STSP bid items
 - SPV items

Bid items also are divided into two categories, significant items and non-significant items. **Significant items make up 80% of the project costs; or the top 20% of items, whichever comes first.** Non-significant items are the rest of the items that are not significant. See <u>FDM 19-5-6.6</u> for more information.

- In addition, bid items are divided into quantifiable and single unit items. Single unit items usually are measured by EACH.
 - Quantifiable items are measured or calculated in the field. Examples include Borrow (CY), HMA pavement (TON), culvert pipe (LF) and manholes (EACH).
 - Single unit items are not measured but are typically paid in full when completed. They may include multiple items. Examples include removing old structure (EACH), excavation for structures (EACH), Mobilization (EACH) and Traffic Control (EACH).

5.4.1 Allowance Items

An allowance item is a known part of the construction estimate, but standard items have not been quantified. They are found in preliminary estimates. As plans are developed, the exact quantities for specific bid items are quantified, decreasing the use of allowance items. Allowance items usually include a class of items and are listed as an EACH SPV in preliminary estimates (SPV.0060).

- Examples include drainage, erosion control, signals, temporary traffic control, signs, and pavement marking items.
- Allowance items may be estimated using the latest Similar Projects Tool or past, similar projects. Use Calculating Percentage Items in <u>FDM 19-5-5.6.4</u> Unit Price Guidance.
 - The Majors Estimating Tool and Backbone Estimating Tool also may be used.
 - **Note:** The item class percentages provided in the Similar Projects Tool are not the same as the allowance percentages in Majors and Backbone Estimating Tools. The Similar Projects Tool percentages are based on the total bid price, and the Majors and Backbone Estimating Tool percentages are based on the cost of major roadway items.
- Design and construction engineering items are other allowance item examples that may be confused as contingency items. The construction estimate does not include design and construction engineering.

5.4.2 Contingency Items

A contingency item is an estimated cost associated with identified uncertainties. Allowance and contingency items are often confused with one another. A basic definition for an allowance item is that it is a known,

unknown, and a contingency item is an unknown, unknown. Both terms are defined in Chapter 10 Definitions of the Practical Guide to Cost Estimating. As plans are developed, the use of contingency items decreases.

- Specific costs associated with risk adjustments from a risk assessment are common contingency items. A risk assessment may be completed with the Backbone and Major Projects Estimating Tools. Both tools are on the <u>Estimating Tools Webpage</u>.
- State Highway Rehabilitation Projects usually do not have risk adjustment contingency items.

5.4.3 Standard and STSP Items

Standard bid items are listed in the <u>Standard Specifications</u>, and Standardized Special Provisions (STSP) are listed in the <u>Standardized Special Provisions Webpage</u>. These pages contain guidance for how to quantify these items. Otherwise, refer to <u>FDM 19-5-3</u> for additional bid item guidance.

- Quantifiable Standard and STSP unit prices are estimated in Estimator, Bid Express and similar projects. The Majors and Backbone Estimating Tools may be used but only in preliminary estimates.
 - For more information estimating asphalt pavement items, see Asphalt Pavement Items under <u>FDM 19-5-5.6.3</u> Bid Item Estimating Guidance.
- Mobilization and Traffic Control items should use the Similar Projects Tool, and similar projects also may be used.

5.4.4 SPV Items

Special provision bid items (SPVs) are non-standard items discussed in <u>FDM 19-15-80</u>. SPV items are more difficult to estimate. Use standard bid items whenever possible.

- SPVs are more expensive.
- Contractors must interpret the SPVs, increasing risk and cost.
- Bid history is difficult to obtain if there is any.
- SPVs require extra work to create bid documents, administer in the field, and for the contractors to estimate.
- The special provisions for comparable projects must be reviewed to determine the differences between past projects and the current design to know if the unit price can be used to create an estimate.
- Non-standard items may be in short supply and are more expensive.

Consider using a specification modification for modifying an existing item. See <u>FDM 19-15-75</u>, the Specification Modifications Section.

- Use Bid Express and similar projects to estimate quantifiable and single unit SPV items. Similar projects are preferred to estimate single unit SPV items.
- If there is not enough bid history, use cost-based estimating.

5.4.5 Cost-based Estimates

Cost-based estimating method use basic elements to develop a unit price like a contractor. Cost-based estimating elements include labor, equipment, materials, overhead and profit. **Talk to an experienced construction engineer to walk through methods; operations; and discussing hours, equipment and wages.**

- Direct costs for each task are developed with separate costs for the labor, equipment and material components of the work required to complete a task. Bid items are broken down into detailed task-by-task work activities. Remember, not all the labor and equipment will be used the entire time.
 - Labor includes crew size and makeup, production rate and labor costs. A mix of the crew is needed, and they all get paid differently, such as operators, labors, and apprentices. Wage rates and fringe benefits on federally funded work are defined in the prevailing wage rates in ASP-9 or the federal wage rate addenda. Wage rates are listed under WI10, WI15 or WI18 of Davis Bacon prevailing wage rates.
 - Equipment includes production rate, equipment costs and fuel costs.
 - Both the Rental Rate Blue Book and the AED Green Book provide equipment cost data. Check whether operator costs are included.
 - The costs of small power and hand tools and miscellaneous non-capitalized equipment and supplies are usually estimated as a percentage of the labor cost. Such allowance can range as high as 12 percent of direct labor cost but is usually much lower.
 - -- Materials include haul distances, fuel costs and site storage.
 - Do material quotes include delivery? The contractor is usually required to off-load, handle

and stockpile, or warehouse materials on site.

- Material waste must be accounted for. Waste can be assumed to be 2 to 10 percent, but it is better to carefully consider specific conditions of the item.
- Overhead Expenses may range from 7% to 10% depending indirect labor costs and general overhead.
 - Indirect labor are wages and labor cost fringes paid to contractor personnel whose effort cannot be attributed to a specific construction task. Personnel such as superintendents, engineers, clerks, and site cleanup laborers are usually included as indirect labor costs or project overhead.
 - General overhead expenses are those incurred by the contractor in the overall management of the business.
- Profit margins generally range from 3% to10%, but this level can vary greatly depending on competition, perceived risk and expected project duration.

Estimator has cost sheets built into the application to assist in the development of bid item cost using the cost based estimating method.

The above guidance and additional cost-based estimating guidance is found in Chapter 4: Cost-Base Estimates of the <u>Practical Guide to Cost Estimating</u>.

5.4.6 Bureau of Structure Estimates

For structures designed by the Bureau of Structures (BOS), BOS staff will provide the estimate and estimate documentation for structure items. Regions should still review and verify prices with current trends and any bid items that also are in the roadway portion match. Regions may adjust structure estimates as they see fit, especially after PS&E. BOS staff typically do not review their estimates after PS&E and may be contacted if region staff have estimate questions for structure items.

5.5 Tools and Resources

Below are the estimating tools currently used by WisDOT.

5.5.1 Primary Tools

The following are main tools used by WisDOT for developing unit prices in construction estimates. <u>Table 5.1</u> shows what estimating tools to use for each item type.

AASHTOWare Project Estimator

- Estimator is WisDOT's preferred method for selecting an initial estimated price for standard, measurable bid items. Estimator is a cost estimating tool that is part of the AASHTOWare software suite. It is a desktop application that needs to be installed onto a computer. Estimator uses a regression price model based upon economy of scale. As quantities increase, the unit price decreases. If there is enough bid history, regression prices account for multiple variables, including location of project, work type classification, and quantity of item. The last three years of bid history are used in Estimator Catalogs, and these catalogs are updated every three months.
- Estimator is used to help designers determine the overall construction project cost. It divides the estimate into various categories. This desktop application can import and export estimates electronically between Quantities 2 Plans or AASHTOWare Preconstruction.
- If there is enough data, Estimator will automatically inflate regression prices to the Base Date.
- The <u>AASHTOWare Knowledge Base Site</u> has step-by-step guidance to <u>create a construction estimate</u> <u>in Estimator</u>. Verify that you are using the most current Estimator catalog.
 - Consultants must download and install catalog updates from the <u>AASHTOWare Project</u> <u>estimator Catalog File Section</u> of the Estimator Installation Site.
 - WisDOT staff will need to contact BITS-CITS staff for access. They have the current catalog available. Catalogs are updated after each catalog release. However, existing Estimator does not automatically update estimates with new catalogs.

- WisDOT user guide to merge Estimator files.

Bid Express

- Bid Express is an online, searchable database of historical bid data developed by Info Tech Inc. An account is required. The database can be used to find average cost information for specific bid items, search for keywords in bid item descriptions, and review awarded contracts. The data search can be tailored to include a specific date range, specific bid items or item descriptions.
 - DOT employees have access to Bid Express by requesting login ID and password from the <a href="https://www.https://wwww.https://wwwww.https://www.https://www.https://www.https://wwwwww

requested information to the HCCI mailbox.

- Consultants are not covered under the WisDOT license agreement. They need to acquire their own license to use Bid Express.
- Bid Express User Guide
 - Bid Express Excel Example

Similar Projects Tool

- The Similar Projects Tool is an Excel file created and updated by Bureau of Project Development. This tool uses bid history that can be filtered by a variety of criteria. The results include mobilization percentages, traffic control costs, item class percentages for allowance items, and project information. The Similar Projects Tool is available on the Estimating Tools Webpage.
- See Calculating Percentage Items in FDM 19-5-5.6.4 for calculating percentage item prices.
- Similar Projects Tool Instructions: The same instructions are found within the Excel file.
- The Similar Projects Tool can be used to find past projects with similar scope, location, and project complexities. Proposal IDs and Controlling Construction IDs are listed.

Asphalt Pricing Map

- Asphalt Pricing uses an ArcGIS analysis to develop a unit price model. It is created and updated by Bureau of Project Development. Project information comes from the Similar Projects Tool. The asphalt unit price model uses historic hot mix asphalt (HMA) pavement prices from recent projects with more than 1,300 TONS of total HMA. The unit prices are the combined HMA pavement prices for each contract. Bid prices were adjusted into current dollars using the Wisconsin DOT Chained Fisher Construction Cost Index and do not need to be inflated.
- Additional guidance for using the Asphalt Pricing Map is found in the initial splash screen and in the information tab on the top right of the screen.
- The Asphalt Pricing Map may be used with the asphalt estimating tool or Bid Express. This map can be used to find nearby counties with similar asphalt prices, and these counties can be used in the search criteria.
- For more information estimating asphalt pavement items, see Asphalt Pavement Items under <u>FDM 19-</u> <u>5-5.6.3</u> Bid Item Estimating Guidance.

Quantities 2 Plans

- Quantities 2 Plans (Q2P) is an Excel Add-in with its own command ribbon that assists the user in quantity computations, comparing various bid item unit prices, creating miscellaneous quantity tables, and building & maintaining the construction estimate. Estimates and quantities maintained in Excel can be exported to Estimator or AASHTOWare Preconstruction (AWP) and vice versa. **Q2P does not replace any estimating tools but is a tool to organize and electronically transfer information between miscellaneous quantity tables and construction estimates.**
- The <u>Q2P Webpage</u> contains a user guide, installation instructions, installer, and support information.

Table 5.1 Tools to Estimate Each Item Type					
	Estimator	Bid Express	Similar Projects Tool	Asphalt Price Map	Similar Projects ¹
Allowance Items					
Quantifiable Standard and STSP Items					
Single unit Standard and STSP Items					
Quantifiable SPV Items					
<mark>Single unit</mark> SPV Items		2			
Specific Bid Items					
HMA Pavement					3
Mobilization					
Traffic Control					
Legend and Notes					

Table 5.1	Tools to	Estimate	Each	ltem	Type
	10013 10	Lotinute	Luch	ncom	1 ypc

Recommended tool to estimate item type.			
Tool works in some instances. Other tool(s) should be used.			
Tool not recommended to estimate item type.			

Note: Item types are defined in <u>FDM 19-5-5.4</u>. Significant items need more than one source for an estimate price. All items listed in in Table 5.1 have at least to primary tools that are recommended.

- 1. (Similar Projects Column) Similar projects are not an estimating tool but are used in estimate development. Similar project guidance is found in <u>FDM 19-5-5.6.1</u>.
- 2. Results may not be similarly scoped. Similar projects likely are needed to find similarly scoped items.
- 3. Similar projects may not be in a similarly priced, geographic area.

5.5.2 Other Tools and Resources Estimating Webpages

- <u>Estimating Webpage</u>: Contains the confidentiality memo and estimating user group member information.
- <u>Estimating Performance Webpage</u>: Contains the estimate accuracy report, a link to the on-budget performance MAPSS measure, and other performance measures.
- <u>Estimate Development Webpage</u>: Contains the estimate documentation template and guidance document, some historic bid data, justification guidance, the production rate tool, the Wisconsin DOT Chained Fisher Construction Cost Index, recent estimating trends, and work classifications that dictate the types of contractors are able to bid on proposals.
- <u>Estimating Tools Webpage</u>: Contains links and guidance for all tools maintained by Bureau of Project Development and Division of Transportation Investment Management.
- <u>Estimate Training Webpage</u>: Contains available construction estimate training videos and past presentations. The training videos are based upon <u>FDM 19-5</u> along with tools and resources linked in this FDM section.

Bid Item List

- The bid item list is an Excel file that contains a list of all standard, STSP and SPV bid items. This list contains current and obsolete bid items and can be used to find recently obsoleted item numbers that new items have replaced. Obsolete bid items shall not be used.

Plans, Proposals, Addenda and As-builts

- For October 2021 and earlier, let plans and proposals are available on the <u>Plans and Proposals FTP</u> <u>Site</u>.

- All let plans, proposals and addenda are available on the <u>Highway Construction Contract Information</u> (HCCI) Pages. The following are steps to navigate to plans, proposals and addenda:
 - After entering the <u>HCCI</u> Page, select Bid letting on the left menu.
 - Scroll down to the *Bid letting information by letting date* bullet list and select the desired letting year.
 - In the bid lettings information by date table, select the desired letting month.
 - Let plans and proposals are in the Pre-bid information Section under Plans and Proposals. Either the files are linked directly for each proposal or they are in an FTP Link.
 - Addenda are in the Addenda Section by Call Number or the last three numerical digits of the Proposal ID.
- For November 2021 and more recent, let plans, proposals and addenda are only available on the HCCI Page.
- Department staff have access to as-builts on the DOTView GIS Application in Geoportal.
- The proposal ID is made of eleven numerical digits. The first eight digits are the letting ID, which is the letting's year, month and day. The last three digits is the call number. For instance, proposal ID 20210309004 was let on March 9, 2021 and was the fourth proposal in the letting.

Structure Costs

- <u>WisDOT Bridge Manual Chapter 5; Economics and Costs</u> contains factors governing bridge costs, economic span lengths and bid letting cost data.
- <u>Structure Cost Summaries</u> contain cost information by structure type in an Excel file for each calendar year.
- The <u>Highway Structures Information System</u> (HSI) may be used to find similar bridges.
 - A WAMS ID is required. In the initial search screen, advanced search options are available after selecting "assist" in the small dropdown in the top-middle of the page. After selecting assist, more search options are available by select the "+" symbol right of the "Reset" Button on the bottom. Hold control to select multiple options of a characteristic. Reset Button on the bottom. Hold control to select multiple options of a characteristic.
 - Additional structure information and plans are available for each search result.
 - An HSI Quick Guide is available.

Past Bid Results

- Past bid results are on the Highway Construction Contract Information (HCCI) Webpages. The past bid results could be used to compare the design project to past projects with similar scope, location, and project complexities.
- Choose a past letting date and select all bids received.
- Past proposals are also accessible through Bid Express.

Preliminary estimating tools developed by Program Development and Analysis in Division of Transportation Investment Management

- Major Projects Estimating Tool
 - Cost estimating tool to assist in preparing accurate total project cost estimates from planning to 30% complete for major projects.
 - Cost estimating software user manual
 - <u>Presentation</u>: Majors cost estimating tool workshop, Cost estimating tool overview (Jan. 19, 2012).
- <u>Project Estimating Tool</u>: An example of a cost estimating tool to assist in preparing accurate total project cost estimates from 30% to 60% complete.
- <u>Backbone Project Estimating Tool</u>: Cost estimating tool to assist in preparing accurate total project cost estimates for backbone projects.

Find Bid Data

- Find Bid Data is within AASHTOWare Project Preconstruction and like Bid Express, is an online, searchable database of historical bid data.
- Bid Express should be used instead of Find Bid Data. The following are concerns with using Find Bid Data by designers:
 - Find Bid Data is not as straight forward as Bid Express.

- Search results do not provide item numbers, descriptions or supplemental descriptions, so the results cannot be confirmed to be correct.
- Text cannot be highlighted or exported into Excel.
- Estimate prices are included in the search results, which are confidential. Designers should be reviewing historic bid prices, not estimates.
- Reviewers may want to use Find Bid Data in their reviews, since estimate prices are provided in projects once they are entered into AASHTOWare Preconstruction.
- <u>The AASHTOWare Knowledge Base Website</u> has basic guidance for this tool.
- Advanced criteria needs to be used instead of system defaults to search supplemental descriptions for SPVs and limit results to recent bid prices.

Price Items

- **Caution:** Pricing items project-wide, for a category or for each item will automatically overwrite and save the new regression prices. You cannot review the regression prices before they are saved. Pricing all items within a project or category should not be used. Otherwise, <u>export the estimate</u> before Pricing Items.
- AASHTOWare Project (AWP) Preconstruction Price Item prices provide basic Estimator regression prices. Price Items in AWP does not account for project work type, region, season or inflate prices according to base date. Estimator will account for these factors if there is enough bid history.
- Price Items can be used after PS&E. If a non-significant measurable bid item is added after PS&E, Price Items can be used to find a regression price.
- The AASHTOWare Knowledge Base Website has basic guidance for this tool.

Statewide Average Unit Prices

- Statewide average unit prices should only be used for conceptual estimates, and not as a source for the PS&E estimate. The statewide average unit prices do not take into consideration the factors of quantity, location, or other project characteristics, so the information is not specific enough for the PS&E estimate. The past three years of average prices are available on the WisDOT HCCI Webpages.

5.6 Construction Estimate Development

5.6.1 Similar Projects

When choosing similar proposals/projects, it's generally not for a single item, but for a category of items, a construction method or type of work that is similar to your project (i.e., unique construction staging, temporary structure, retaining wall, nightwork, etc.).

The <u>Similar Projects Tool</u> can be used to find projects based on various filters such as: Improvement Type/Concept, Work Type/Rating, Region, County, and more.

5.6.2 Project Characteristics

Project characteristics influence the bid prices and should influence the estimate. The more contracts have short production runs, traffic shifts, constrained schedules, the higher bid prices could be. Keep in mind, historic bid prices for any item is a blended price that included many of the factors below.

Designers often account for project risk or complexities in multiple locations within an estimate, which generally increases the overall cost of the estimate over and above a reasonable bid price. Be careful not to adjust for multiple factors with the same underlying factor, such as increasing estimate prices for expedited schedule and night work. Choose unit prices based upon the characteristics of your project within range of historic prices.

Schedule and Road User Costs

- **The letting date does influence bid prices.** Bids are typically higher in the spring and summer months. Contracts let closer to when work is scheduled to begin will see higher bid prices, and contractors are focused on their on-hand work. Competition decreases in April and May lettings as contractors fill up with work before a construction season, which leads to higher prices.
 - For contracts less than \$10 million, November through March letting months have higher estimate accuracy or the bids are low. Contractors are concentrating on bidding for work in the next construction season and bid aggressively.
 - A contract more than \$10 million usually can be in any letting month. Larger contractors who bid on larger contracts likely have dedicated staff for developing bids.
 - Review <u>Attachment 5.2</u> for recommended letting months by Improvement Strategy. If the letting date can be moved and the letting still has capacity, move the project's letting into a more favorable letting.

- The more the contractor's construction schedule is dictated in the contract (i.e. interim completion times, completion dates and liquidated damages), the higher bid prices will be. Seriously evaluate the need for dictating the final and interim completion times, and ensure the requirements are not already covered in the standard specifications.
 - The contractor has additional risks, especially if something happens out of the contractor's control, such as weather, natural disasters, labor or material shortages. Additional risk translates into higher unit prices.
 - Higher bid prices occur when multiple crews are required with an accelerated schedule. Mobilization costs increase and each crew is completing shorter runs, decreasing production rates and increasing costs. Not all contractors have multiple crews available, and an accelerated schedule will limit competition, which also leads to higher costs.
 - An accelerated contract dictated in the contract does not mean the work will be completed on time. The contractor may not be able to follow the accelerated schedule and they might increase bid prices to include liquidated damages, especially if there is little or no competition. In these cases, the Department is indirectly paying the contractor's liquidated damages. Mobilization is usually bid higher.
 - Estimate prices should reflect the additional effort that contractor will need to make. Requirements such as overtime, multiple crews and additional equipment will impact the cost of the project. Do not increase individual bid items along with single unit items, such as Traffic Control and Mobilization. Only one or the other should reflect the additional costs the contractors are encountering.
- Multiple season contracts will have higher unit prices for items completed in later seasons. Consider material cost volatility; increased labor, fuel and equipment costs; and weather risks.
- Use the <u>Production Estimation Tool</u> in <u>FDM 19-10-30.3</u> to develop a reasonable construction schedule.
 - Production Rates have inverse correlation with unit prices. As production rates decrease, unit prices increase.

Traffic Control (Construction Staging)

- How much work is getting completed in each stage? Long production runs will see high production rates and lower unit prices, and short production runs will see low production rates and higher unit prices.
 - How many mobilizations are required for equipment, material and labor? The Mobilization Bid Item will be higher with additional mobilizations.
 - Bid prices usually are closer to the quantity being completed in each stage, mobilization or location instead of the entire contract. Use a weighted average when calculating the unit prices of items in multiple stages.
 - Mainline closures typically see the lowest unit prices and highest productions rates unless local, urban traffic is to be maintained.
- Nightwork and nightly lane closures have higher costs due to lower production rates, extra safety costs, lighting, mobilizing equipment each night.
- Working under traffic also has lower production rates and increased costs.

Construction Conflicts

- Construction conflicts that may impact the critical path work schedule will impact unit prices, especially if the project has interim and final completion dates. Mobilization and items impact in the critical path are usually bid higher. Higher mobilization bid prices can be due to perceived risk if the contractor is expected to pay liquidated damages, and bid items are higher if production rates need to be higher with multiple crews or longer hours. These possible areas could cause construction conflicts: utility, DNR and railroad coordination; hazardous materials; and archeological monitors.
- When there are conflicts, such as underground and overhead utilities, being constructed with construction projects, contractors' productivity might be reduced when working around the conflicts which will increase the bid item price of the items that need to be completed around the conflicting utility.

Competition

- Competition plays a critical role in bid prices. Strong competition will generally result in aggressive bid prices. As competition increases, prices tend to decrease. The <u>Estimate Accuracy Report</u> compares total bids and estimates in the Percent Over (Under) by Number of Bidders Graph.
- Certain work types have less competition. For example, asphalt producer locations are controlled by

material sources (pits and quarries), so the location of the project drives who will bid on a proposal.

- The Similar Projects Tool and reviewing past, similar projects may be used to estimate competition. The Similar Projects Tool does provide the average number of bidders in the results of filtered projects. Plan holders and eligible bidders are available on the HCCI Webpages or Bid Express.

Other Considerations

- When projects are more than 10 miles apart, they usually do not see cost savings when they are bundled. Unit prices are typically closer to pricing quantities for each project, location and each construction stage. When projects are being constructed at the same time and are within 10 miles of each other, there tends to be a cost savings.
- Urban projects are typically more expensive for the following reasons.
 - Lack of staging areas require more frequent material and equipment deliveries, increasing mobilization and other item costs.
 - Working around pedestrian and local traffic accommodations may keep production rates low and costs high when most work is done in piecemeal with low production rates.
 - Buildings or traffic close to the roadway means the contractor must work carefully with large equipment, decreasing production rates and increasing costs.
- Constrained work environments could be in a rural area due to limited right-of-way or project access. Increase mobilization accordingly. You may need to increase impacted items if the constrained work environment impacts production rates.
- The <u>Transportation Improvement Program ArcGIS Online Map</u> shows upcoming projects and their location. Open the legend to find the color that corresponds to when your project is being let or constructed.
 - Bid prices are typically lower if there is similar work within about 10 miles of the project.
 - The contractor can move crews and equipment between projects.
 - The contractor orders more material giving them a lower material cost.
 - Small projects near other projects with similar work will typically get lower bid prices, and small projects not close to other projects typically will be higher.
 - However, a nearby project may not result in lower bid prices with different work types and different contractors.
 - If there is similar project within 10 miles of your project, you may want to bundle the projects especially if your project has less than 30,000 tons of asphalt.
- Consider where suppliers are located compared to the project, such as asphalt and concrete plants, availability of earthwork on site, and haul distances for waste material.
- Current bid item trends may be reviewed in the Recent Estimating Trends Document.

5.6.3 Bid Item Estimating Guidance

The following information should be considered when determining unit prices for individual items. These considerations are not all-inclusive but provide a starting point.

Removing Asphaltic Surface Milling (204.0120 & 204.0125)

- Average and regression prices are not recommended to be used.
 - If the millings can be reused, prices are lower than average.
 - If the millings cannot be reused due to a sealcoat, long haul distances or the construction schedule is constrained, prices are higher than average.

Hot Mix Asphalt Pavement Items (460)

- Geographic location of the project has just as much influence in HMA unit prices as mix design.
 - Bid prices in similar geographic area should be considered. Bid prices generally are lower when genuine asphalt competition exists and are higher when no competition exists. The <u>Asphalt</u> <u>Pricing Map</u> provides unit price ranges that should be used for the initial estimate.
 - In preliminary estimates, the Asphalt Pricing Map may be used, especially if the asphalt pavement mix design is not known.
 - In final estimates, the Asphalt Pricing Map can be used to find nearby counties with similar asphalt prices, and these counties can be used in the Bid Express search criteria.
- HMA pavement has about 80 items. Some mix designs do not have a large difference in unit prices between each other, and broader searches may be used. Average price differences by mix

characteristic are provided in the Recent Estimating Trends Document.

- Estimates may be adjusted with more common items, but only one characteristic price difference or an average of multiple characteristics should be used.
- HMA pavement projects will start seeing higher asphalt prices with less than 20,000 TONS of total HMA, especially if the project is farther from a permanent asphalt plant. Costs for a mobile asphalt plant or additional hauling costs affect unit prices more with lower quantities.
 - Projects with less than 1,300 TONS of HMA should not use the Asphalt Pricing Map, and typically have the highest bid prices. Prices vary more as quantities get lower and rely on how much asphalt work is nearby in other contracts
 - The <u>Similar Projects Tool</u> may be used to find projects with similar quantities. It has total HMA pavement in Column T of the Data Sheet.
- Reviewing asphalt prices: The following steps are recommended to quickly get reasonable asphalt unit prices for reviewing estimates prices or for preliminary asphalt prices. Final estimate prices also should use Bid Express or similar projects.
 - 1. Review the <u>WisDOT Chained Fisher Construction Cost Index</u> to see if costs are increasing, decreasing or neither. Page 3 contains the Asphalt Construction Cost Index.
 - 2. Go to your project location in the <u>Asphalt Pricing Map</u>. Select a value within the range of typical prices. If costs are increasing, select the upper range or vice versa. If costs remain relatively constant, select a middle price.
 - Adjust the price based upon the mix design, production rates and quantities. Statewide average price difference for HMA pavement mixture characteristics for the past year are in the <u>Recent Estimating Trends</u> Document. Production rates are discussed in Schedule and Road User Costs and Other Consideration in <u>FDM 19-5-5.6.2</u> Project Characteristics, and quantities are discussed earlier in this section.

Concrete Masonry Bridges (502.0100)

- The two main factors that influence prices is the bridge type and the contractor. Average and regression prices are not recommended.
 - Each contractor will balance their bid differently between Concrete Masonry Bridges, Removing Structure, and Excavation for Structures items. All three items should be estimated at the same time with the same bid data.
 - Bid prices are higher with lower production rates. Prices will be higher if formwork is more difficult to complete, especially if there is only work on the superstructure.
 - Concrete slab-span bridges typically receive bids lower than average.
 - Girder bridges typically receive bids at about the average price.
 - Rehabilitated bridges typically receive bids higher than average.
 - The <u>Similar Projects Tool</u> and <u>Bid Express Bid Tab Analysis Page</u> may be used to find recent, similar bridges using the "Copy Proposal IDs for BidX Button" in the Similar Projects Tool.
 - In the Similar Projects Tool, the Improvement Type Filter may be used to obtain a Proposal list of proposals that are bridge rehabilitations or bridge replacements. This separates proposals with bridge rehabilitations and bridge replacements. Other filters may be used.
 - Press the "Copy Proposal IDs for BidX Button" and paste the proposal ID list in the Proposal Items Field of the Bid Express Bid Tab Analysis Page
 - In the Item Field, enter the first portion of the In Bid Express and other search fields.
 - If the Item Field is left blank for a search, the Bid Express search results will not work.
 - If proposals with similar bridge replacements need to be found, search for bid items only found in slab-spans or girder bridges, such as prestressed girder items. Bridges with other unique criteria may need to use the Highway Structures Information System. Finding slab-span bridges will be a process of eliminating proposals with other bridge types such as girders bridges.
 - Structure plans will need to be reviewed to verify similar structures have been found. See Plans, Proposals, Addenda and As-builts in <u>FDM 19-5-5.5.2</u> Other Tools and Resources to find bridge plans by proposal ID.
 - The <u>Highway Structures Information System</u> (HSI) may be used to find similar bridges. The HSI is not updated until the bridge has been built, but it contains more search criteria. For more

information, see Structure Costs in FDM 19-5-5.5.2 Other Tools and Resources.

Concrete Masonry Overlay Decks (509.2500)

- Special crews and equipment are required to complete this item. The Department is aware of only two contractors that can complete this work, Zenith Tech., Inc. and Lunda Construction Company. Bid prices will vary depending upon the constraints to complete this item in your project and their availability with their current workload.

Temporary Structures (526.0100)

- Temporary structures for areas with past flooding issues that are built as bridges instead of culverts should have a higher estimate than other drainage structures. Try to find a similar project and increase the estimate accordingly.

Mobilization (619.1000)

- What crew and equipment are required to complete the work? Project size, location, construction stages all influence contractor's bid for mobilization. A common method for estimating the Mobilization bid price is as a percent of the total construction estimate. The Similar Projects Tool and tables showing median mobilization percentages for past proposals by improvement type in the <u>Estimating Tools Webpage</u>. Similar sized projects should be compared in the similar projects tool for more accurate mobilization percentages. Although these resources help determine a starting point, the estimated Mobilization bid price should be adjusted for project specific details. The Similar Projects Tool contains a large table of various proposal characteristics.
- See Primary Tools in <u>FDM 19-5-5.5</u> Tools and Resources for links and information about the Similar Projects Tool.
- See Calculating Percentage Items in <u>FDM 19-5-5.6.4</u> for calculating Mobilization price.

Handwork

- Item quantities completed by hand instead of a machine have low production rates and are typically 2 to 2.5 times more expensive than being completed by a machine. This is true for items completed at spot locations such as curb ramp items or median reconfigurations. Blend costs for completing quantities by hand and by machine. See Blending Unit Prices in FDM 19-5-5.6.4 Unit Price Guidance.

Unbalanced bids

- An unbalanced bid involves the shifting of dollars between bid items until the unit price does not reflect a reasonable cost for each item. FHWA defines two types of unbalanced bids, mathematically unbalanced bids and materially unbalanced bids.
 - Mathematically unbalanced bids contain bid items with unbalanced unit prices, but the final cost of the contract is not impacted. This type of unbalanced bid is legal.
 - Materially unbalanced bid also contain bid items with unbalanced unit prices, and the final cost of the contract is increased. This type of unbalanced bidding is illegal.
- How should items be estimated where costs can easily be shifted between items? Contractors often estimate a total cost to perform their work and distribute the total cost amongst their items. How they distribute the costs is often different in each project and for each contractor. For instance, one contractor will distribute higher costs for single unit items and lower costs for the remaining, measurable items (High cost for Structure Excavation and lowers costs distributed for measurable earthwork and aggregate items).

5.6.4 Unit Price Guidance

Rounding Unit Prices

- Prices shall be rounded according to the engineer's confidence in the estimate price. Roughly estimated items should have the unit price rounded to one or two leading numerical digits. Estimate prices usually do not need more than three leading numerical digits.
- Example: A regression price of \$34.18 should be rounded to \$35.

Regression Prices

- In Estimator, how did the project quantity fit into the item regression curve? Estimator curves are most reliable between the 25% and 75% quartiles. Other estimating tools are recommended if quantities are outside the 25% and 75% quartiles.
 - For high quantities, the regression price may be low. Bid prices will reach a minimum price, but the regression curve will continue to decrease. Reviewing historic prices in Bid Express will be more reliable.
 - For low quantities, bid prices usually significantly vary.

Calculating Percentage Items

- Allowance Items, Mobilization, and sometimes Traffic Control are estimated as a percentage of the total estimate. The <u>Similar Projects Tool</u> contains the expected ranges of percentages in the results of filtered projects.
- Example for calculating Mobilization with Traffic Control: For a project with \$2 million of known items (i.e. not including Mobilization and Traffic Control). The similar projects tool was used to find the percentages in this example. Mobilization is estimated at 5% and Traffic Control is estimated at 1% of the total construction estimate.

 $Total = (known items) + (5\% \times Total) + (1\% \times Total)$

- Rearranging this equation, the following generic equation can be used to find the Total:

$$Total = \frac{(known \, items)}{(1 - \sum percentages)}$$
$$Total = \frac{\$2 \, million}{1 - (0.05 + 0.01)} = \frac{\$2 \, million}{0.94} = \$2,127,659.57$$
Mobilization = 5% × \$\$2,127,659.57 = \$106,282.08 or \$\$11

 $Mobilization = 5\% \times \$2,127,659.57 = \$106,382.98 \ or \ \$110,000 \ rounded.$

 $Traffic\ Control = 1\% \times \$2,\!127,\!659.57 = \$21,\!276.60\ or\ \$21,\!000\ rounded.$

- This equation may also be used with allowance items in preliminary estimates using percentages found in the similar projects tool. There is no limit to the number of percentage items that can be calculated.

Blending Unit Prices

- Blend prices based on total proposal quantity. The blended price is the total bid item amount from all projects divided by the total quantity.
- Example: Two projects in one proposal have Excavation Common.

Project 1 has 10,000 CY of Excavation Common estimated at \$6/CY for \$60,000.

Project 2 has 1,000 CY of Excavation Common estimated at \$12/CY for \$12,000.

The total bid item amount is \$72,000, \$60,000 + \$12,000.

The total quantity is 11,000 CY, 10,000 CY + 1,000 CY.

The blended price is \$6.54, \$72,000/11,000 CY. The final blended price should be rounded to \$6.50.

Adjusting Unit Prices

- The <u>WisDOT Chained Fisher Construction Cost Index</u> (WisDOT CCI) provides an indicator of construction cost escalation over time and can be used to convert past bid history into current dollars. This index has a base year of 2010. The WisDOT CCI is updated each quarter by calendar year.
- <u>Understanding the WisDOT Chained Fisher Construction Cost Index</u> contains additional information about the WisDOT CCI.
- **Do not forecast prices past the current date.** Use the current WisDOT CCI value. Region programming will inflate the projects into future dollars.
- The WisDOT CCI should only be used to convert past prices into current dollars without recent bid history. The WisDOT CCI shows trends for all items and cost trends vary for each bid item. Adjusting prices using the WisDOT CCI is approximate but will provide a better estimate of inflated costs than assuming an inflation rate or not adjusting at all. Recent price trends for bid items will always be more reliable.
- Use a ratio from past and current WisDOT CCI values to convert past prices into current dollars. The equation is outlined below.

$$\frac{Current \ Index \ Value}{Past \ Index \ Value} \times Past \ Bid \ Price = Current \ Bid \ Price$$

- Example: A current project has a bid item that has not been used since March 2011, and the bid price was \$870/LF. The index value for 2011 quarter 1 is 103.1, and the index value for 2019 quarter 2 is 140.8. Plug these values into the above equation as shown below. The current price is \$1,188 or about \$1,200.

$$\frac{140.8}{103.1} \times \$870 = \$1,188$$

This method for adjusting prices using the WisDOT CCI comes from the <u>RS Means Historical Cost</u> <u>Indexes Article</u>. - Estimator prices do not need to be adjusted. Estimator catalogs already adjust prices into current dollars when there is enough bid history.

5.7 Contract Document Bid Impacts

Good plans and contract documents encourage good bids. We all strive for it. Approach your plan with the understanding that the contractor and field staff were not involved in the design process. It is important to have clear, thorough contract requirements.

5.7.1 Errors and Inconsistencies

The estimate should be reviewed for typing errors and inconsistencies.

- Typos usually increase/decrease the unit price by a factor of 10 or 100, which can cause a significant change in the overall estimated price of a proposal. Errors like this are a great example of why an independent check should be performed on an estimate and is an easy thing to check for to increase our engineering accuracy.
- Ensure names for construction details, plan notes, miscellaneous quantity notes, specials, etc. are consistent.

Confidence decreases in the plans as more addenda are needed to address errors. With the decrease in confidence the contractor will put more risk into their bid.

5.7.2 Ambiguity and Risk

Remove contractor risk from the PS&E documents that may affect estimate prices by addressing uncertainty in the plans, specifications, and schedule. The more uncertainty or risk in a proposal, the greater chance the contractor will increase the bid cost to protect against financial loss. For instance, traffic control items will have higher risk and cost if there is ambiguity in the traffic control plan or there is not enough room in the work area for contractors to perform the work. Another area that causes uncertainty is when the payment method isn't clearly defined in the SPVs.

5.7.3 Incidental Items

Items that are incidental to the contract still cost money for the contractor to complete. Avoid incidental items if pay items exist. If incidental items are necessary, include the costs to complete incidental work in the respective bid items.

LIST OF ATTACHMENTS

Attachment 5.1	Construction Estimate Development Overview
Attachment 5.2	Recommended Letting Months by Improvement Strategy

FDM 19-5-6 Construction Estimate Documentation Report

May 17, 2021

Estimate documentation is required for all WisDOT let proposals. The purpose of the documentation is to provide a record of the decisions made during the development of the proposal cost estimate. Reviewers will use the documentation during the estimate review process as outlined in <u>FDM 19-5-7</u>. The documentation should also reflect modifications made by the project team during the final estimate development and review. The estimate documentation report is a required exhibit to be submitted with a let project PS&E to central office as described in <u>FDM 19-10-1.2.1</u>. The latest <u>Estimate Documentation Report Template</u> is found on the <u>Estimate Development Webpage</u>.

The current template includes the following information:

- Estimate Documentation Information
- Executive Summary
- Estimating Tool Parameters
- Similar Projects or Proposals
- Project Characteristics
- Item Level Documentation
- Attachments

For additional estimate documentation guidance and examples, refer to the <u>estimate documentation guidance</u> <u>document</u> on the <u>Estimate Development Webpage</u>.

6.1 Estimate Documentation Information

At the top of the first page, enter requested information in the fields. How was it decided to list multiple projects?

6.2 Executive Summary

Describe the project scope. Provide a summary of proposed work, including reconstruction segments, rehabilitation segments, number of various structures and the major factors that could potentially impact the estimate.

Select the project's Improvement Strategy. See <u>FDM 3-5-1.1</u> for definitions. Select all that apply when there are multiple project IDs in one estimate documentation.

6.3 Estimating Tool Parameters

1. Estimator Parameters. Document the use of the Estimator parameters shown below.

Work Type:	•	
Highway Type:	•	
Urban/Rural Type:	•	
Season:	-	
County:	•	
District:	-	

- 2. Bid Express and Other Tool Parameters. List the general parameters. Variations of these should be noted in the item price documentation.
- 3. Refer to the <u>AASHTOWare Knowledge Base Website</u> for guidance on how to fill out this table.

6.4 Similar Projects or Proposals

Use the recommended table to list the similar projects and information used to develop the estimate. Provide a brief explanation for how each project is similar and what items prices were compared.

6.5 Project Characteristics

Enter information related to each section of project characteristics. The following are different sections of project characteristics. Discuss in unit price justification characteristics that impacted estimate prices.

- 1. Schedule and road user costs.
- 2. Traffic control.
- 3. Construction conflicts.
- Competition of Contractors. Provide the best guess for competition based upon similar projects, how desirable the project may be for contractors, and the remoteness of the project. See <u>FDM 19-5-5.3</u> for additional information about competition.
- 5. Other considerations.

6.6 Item Level Documentation

The amount of documentation required for any one individual item will vary on the importance of that item to the overall total project cost. It documents what factors were considered when selecting the price and answering the question "why" a price was chosen.

Significant items require the most documentation. Significant items have the greatest influence on estimate accuracy; therefore, it is recommended that more time and effort be focused on determining the unit cost for these items using multiple sources. For all other items, the level of effort and documentation required should be relative to their importance to the overall project cost.

Complete item level documentation as the estimate is being developed. It documents what factors were considered when selecting the price and answering the question "why" a price was chosen.

An example of the Item Level Documentation is in the estimate documentation guidance document.

Use the recommended table to list the significant items including total proposal quantity and percent of total proposal contract value for each significant item. Provide Item Level Documentation for each significant item and summary for non-significant items.

 Significant items list and item level documentation. Significant items make up 80% of the project costs; or the top 20% of items whichever comes first. Provide methodology used to estimate these items. Item level documentation may be an attachment to the estimate documentation template such as the Estimator notes section, an added column to the Q2P main Bid Item worksheet (for WisDOT staff only), an added column to a custom project spread sheet, or a Word document. If the significant item documentation is within an attachment, provide a list of significant items, and state the attachment that contains the documentation. It is recommended that more time and effort be focused on determining the unit cost for these items and use multiple sources.

2. Non-Significant items summary. Summarize the methodology used to estimate non-significant items. Item Level Documentation is not required for non-significant items where the prices were determined in Estimator and it fits the regression curve between the 25% and 75% quartiles. Prices outside of the 25% and 75% quartiles should be verified with another source. Include this summary in the attachments.

6.7 Attachments

Attachments may be referenced throughout the Estimate Documentation. Select the attachments that have been included in the Estimate Documentation. Other attachments may include Non-Significant items summary, Bid Express printouts of significant items, cost-based estimate worksheets, or review comments referenced in FDM 19-5-7.1 and FDM 19-5-7.2.

FDM 19-5-7 Construction Estimate Review

May 17, 2021

Estimate accuracy increases if significant item unit prices have been updated prior to plan submittal. Reviewing and updating significant item unit prices is critical to ensuring construction estimates are more accurate.

Review how costs have changed since project inception and see if costs are consistent throughout

7.1 Independent Review

An independent review of the estimate and its documentation must be completed by the project manager or delegate who did not develop the estimate. This review is in addition to the Program Controls Review. Independent review should be completed throughout the estimate development.

7.2 Region Program Controls Review

Estimates will be reviewed by the Region Program Controls Unit or delegate before PS&E.

7.3 Post PS&E Review

7.3.1 PS&E to Letting

A cursory review of all estimates will be completed by the Statewide Estimating Engineer. An in-depth review of specific items will be performed based upon current trends.

Updating the estimate after PS&E

- Review major bid items to recent lettings when central office plan review comments are received. View the <u>Recent Estimating Trends</u> document, and update the estimate appropriately. This will be the last time that prices can be adjusted unless an addendum for other design needs is completed. An updated Estimate Documentation Report is not required.
 - Bureau of Project Development would like the construction estimates to be as accurate as possible before the bids are received. If an addendum is already needed, estimate unit prices may be updated for any item, especially for items impacted by the addenda.
 - Regions may adjust structure estimates after PS&E. BOS staff typically do not review their estimates after PS&E and may be contacted if region staff have estimate questions for structure items.
- If the project's estimate changes after PS&E by 10% or \$100,000 contact Regional FIIPS Coordinator to work with Programing Finance staff to update FIIPS. Once the project is sent to FHWA, six to eight weeks prior to the letting date, the estimate and project funding is locked in FIIPS.

7.3.2 Post Letting

Do not contact a contractor that submitted a bid on a proposal during the post letting review process. A contractor's bidding strategies or opinion of the proposal shall not influence the decision to award or reject a proposal. Design teams can reach out to industry, through Bureau of Project Development (BPD) working with contracting associations, for biddability and constructability information. This includes contacting eligible bidders that did not turn in a bid to determine reasons for lack of interest in a proposal. Contact BPD Proposal Management Section Chief if there is a need to outreach to industry to help with a justification response. See FDM 11-5-1.2 for collaboration with industry during the design process.

The designer is required to review the estimate when the estimate and actual bid prices varies from the low bid in the following instances.

- The estimate is higher than the low bid by more than 10%.
 - The estimate is the denominator in justification emails. However, estimate accuracy and FHWA/DOT Stewardship has the low bidder as the denominator, where 50% of the estimates will be within 10%.

- The low bid is higher than the estimate by more than 5%.
 - The estimate is the denominator for the governor's letter explaining why the bid prices are high compared to the estimated costs.
- A bid item is bid differently between bidders that a small change in quantities could change the low bidder. The designer is required to verify that the quantities are accurate for these items.

The Department needs to verify we are receiving the true low bid and awarding contracts to the lowest responsible bidder. When a quantity error is found, an Unbalanced Bid Analysis is completed. The Construction and Materials Manual (<u>CMM 210.2.1</u>) contains the steps followed when Bureau of Project Development completes an Unbalanced Bid Analysis.

<u>Justification response guidance</u> is attached to the email from Bureau of Project Development and on the Estimate Development Webpage. This guidance provides expectations and guidance for justification email responses. Then, Bureau of Project Development receives the right amount of information in our decision to recommend awarding a contract.

The review completed by the designer will include analysis of costs and quantities for bid items that are significant to the contract to provide a project specific perspective on the discrepancies between the bid and estimated prices. The bid review process is based upon FHWA's <u>Guidelines on Preparing Engineer's Estimate</u>, <u>Bid Review and Evaluation</u>.

FDM 19-5-10 Create Estimate and Proposal

For information on AASHTOWare Project Preconstruction go to the AASHTOWare Project Webpage.

The <u>AASHTOWare Project Preconstruction Page</u> of the AASHTOWare Project Knowledge Base Site will direct the user to documents that are intended to guide the designer through the process of preparing an estimate, developing a proposal, and submitting it for PS&E. The Bureau of Project Development, Publication Standards/Technology Unit can also be contacted for process and procedure questions.

FDM 19-5-20 FHWA Project Authorization Process (Delegated Projects)

20.1 Background Information

Differences in project estimates between Federal Highway Administration's (FHWA's) Fiscal Management Information System (FMIS) and related WisDOT systems have caused problems on delegated projects. One of the more common errors occurs in the FMIS Total Project Cost data element. This cost data is transmitted electronically from WisDOT's Financial Integrated Improvement Programming System (FIIPS), but its original source is AASHTOWare. When FHWA reviews a sample of delegated projects, the FMIS cost estimate at the time that authorization of federal funds was requested and approved does not always match the Engineer's Estimate (AASHTOWare) that was provided.

The following process has been developed to identify and preserve the AASHTOWare estimate that matches FMIS (PS&E estimate or a later estimate that is used at the time of authorization), so it can be provided to FHWA upon request in the event the project is selected for review. For additional information, WisDOT staff can refer to document number 06-10-60 of the Program Management Manual.

20.2 Corrective Actions for the Cost Estimate Data

As mentioned, one of the more common errors occurs in the FMIS Total Project Cost data element. This cost data is transmitted electronically from FIIPS, but its original source is AASHTOWare. When FHWA reviews a sample of delegated projects, the FMIS cost estimate at the time that authorization of federal funds was requested and approved does not always match the Engineer's Estimate (AASHTOWare) that is provided.

The following process has been approved to identify and preserve the AASHTOWare estimate that matches the FMIS project cost (PS&E estimate or a later estimate that is used at the time of authorization), so it can be provided to FHWA upon request in the event the project is selected for review.

For state projects:

When a AASHTOWare project estimate has been revised after the initial PS&E submittal, either by the plan checkers, Region designers or consultants, a PDF of the updated estimate(s) shall be sent to the Region Project Manager. Region Project Managers are required to keep a copy of all AASHTOWare estimates made between PS&E and award, not just the latest estimate. The estimates shall be stored in the project directory to ensure that they can be accessed by anyone. Only cost estimate changes after PS&E that exceed \$100,000 or 10%, either up or down, will be made in FIIPS. The Region Project Manager will inform the Region FIIPS Coordinator of all cost estimate updates after PS&E that exceed this threshold. The Region FIIPS Coordinator must make these updates to the estimate in FIIPS and delegate the project to Central Office for check-in. Note that there is an approximate 3-week lockout of FIIPS while

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December 20. 2013

the project is at FHWA for authorization.

For local projects:

- When an AASHTOWare project estimate has been revised after the initial PS&E submittal, either by plan checkers or the design consultant, a PDF of the updated estimate(s) shall be sent to the Region Project Manager. Region Project Manager are required to keep a copy of all AASHTOWare estimates made between PS&E and award, not only the latest estimate. *The Region Project Manager will inform the Region FIIPS Coordinator of all cost estimate updates after PS&E that exceed the \$100,000 or 10%.* The Region FIIPS Coordinator must make updates to the estimate in FIIPS and delegate the project to Central Office for check-in. Note that there is an approximate 3-week lockout of FIIPS while the project is at FHWA for authorization.
- The Proposal Management Section will use the FHWA Compliance Assessment Program form to help Regions identify documents for review. This summary identifies the Region Project Managers, the exact Engineer's Estimate (FIIPS FHWA 37 Form Estimate) that needs to be provided to FHWA, and the estimate date taken from FIIPS Tracking to help Regions locate the estimate.
- <u>FDM 19-1 Attachment 1.5</u> provides a timeframe when authorization will be taking place for each letting date (between when the PS&E is submitted to FHWA and the AD Meeting). The Region can check that they have a copy of the cost estimate in the project files that matches FIIPS (FMIS) at that time.

Item Description	REFERENCE				
Granular Materials	Bridge Manual 6.4.2				
HMA Pavement	FDM 14-15-10, Table 10.4				
Base Aggregate Dense	FDM 19-5-3 Table 3.1				
Base Aggregate Open Graded	FDM 19-5-3 Table 3.1				
Select Crushed Material	FDM 19-5-3 Table 3.1				
Shoulder Gravel	FDM 19-5-3 Table 3.1				
Tack Coat	Standard Specifications 455.3.2.1				
Fertilizer	Standard Specifications 629.3.1.2-3				
Seed Mixtures	Standard Specifications 630.3.3.5.1				
Temporary Seeding	Standard Specifications 630.3.3.5.1				
Nurse Crop Seeding	Standard Specifications 630.3.3.5.1				
Water (SOD and Seed)	FDM_10-10-8.4				
Water (Base Aggregate Dense)	FDM_14-5-10.1				
Incentive (Strength Concrete Pavement, IRI Ride, Density HMA Pavement and Concrete Structures)	FDM 19-21-1, Page 2				

Sample FIIPS Quantities Update Form (Click link for a working copy of this template: <u>FDM 19-5 A3.1 File 1</u>)

FIIPS Quantities Update Form

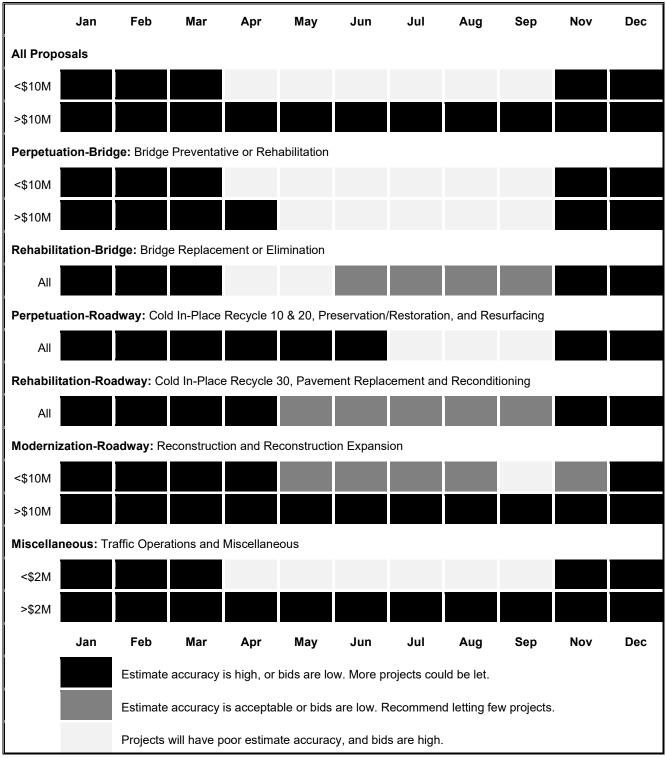
Prepared By:	Today's Date	Project Stage:

Construction Project ID	Limit	Highway	ASPHALT (Tons)	CONCRETE (Sq. Yards)	EXCAVATION (Cubic Yards)	BASE COURSE (Tons)	BRIDGE (Sq. Feet)	Milling (SQ.Yards)	DIAMOND GRINDING (SQ.YARDS)	TRAFFIC STRIPING (LINEAL FT)	R UBBLIZING (SQ.YAR D S)		
			0				I	I					
	rence PMM 05-10-15 Definitions of												
ASPHALT	-Includes all tons of plant and road mi	-		experimental mo	(es.								
CONCRETE	-Does not include asphaltic materials (oil) or other additives.												
CONCRETE	 Includes square yards of street/road pavements including full-depth concrete patches, gaps, and concrete base course. Does not include sidewalks, driveways, curb & gutter, etc. 												
EXCAVATION	- Does not include sidewarks, driveways, curb & gutter, etc. - Includes all cubic yards of excevation including common, rock, unclassified, marsh, borrow, etc. However, if the project includes the												
	Embank ment special provision, only report the larger volume of either (common + select borrow, + rock + marsh + s form sewer, EBS, etc.) or												
	(embank ment + select borrow + rock + marsh + storm sewer + EBS, etc.)												
BASECOURSE	E - Includes all tons of gravel or crushed aggregate base course including all open-graded base courses, breaker run stone, and all												
	truck-hauled pavement material recyc												
BRIDGE DECK	K - Includes all square feet of concrete deck area for bridge replacement, superstructure replacement, and concrete masonry deck overlays.												
	Does not include bridge painting and								lymer overlay.				
MILLING -Includes square yards of milling items for: removing pavement (concrete), butt joints, removing surface; butt joints; salvaged asphaltic pavement, milling; mill and relay asphaltic pavement, and													
	pavement.					,	0 p						
DIAMOND GRINDING	-Includes square yards of continuous diamond grinding.												
TRAFFIC	- Includes lineal feet of permanent and temporary pavement marking for lane line, edge lines, and centerlines.												
STRIPING	- Does not include pavement markings for incidental items such as crosswalks, stop lines, curbs, arrow, etc.												
RUBBLIZING	- Includes square yards of rubblizing existing concrete pavement.												

The following steps are a guide for the construction estimate development overview process. The steps listed below should be adapted to fit your estimating style. Creating an estimate requires critical thinking and engineering judgment that must be applied when determining estimated quantities and costs. For additional information on topics below, see <u>FDM 19-5-5</u>, <u>19-5-6</u>, & <u>19-5-7</u>.

- 1. Review plan set and check for accuracy.
 - Do the specifications match the plans?
 - Are the correct bid items included in the plan?
 - Are the quantities accurate?
- 2. Use Estimator to determine initial prices for items. Price Items in AASHTOWare Project Preconstruction is not recommended to be used.
 - Use Estimator regression equations to determine initial prices (Check that they are within the 25% to 75% quartiles. If outside, use an alternate method, see Step 3 below).
 - Do not use Estimator for lump sum items (mobilization and traffic control), SPV items or items with parentheses in description such as removing old storm sewer (size). Use Similar Projects Tool & past projects to estimate mobilization and traffic control.
 - If projects will be combined, estimate projects items individually for each project, create a blended price for the proposal. Similarly, when a single project contains multiple bridges (Region Bridge Projects), or intersection work that is not at the same location (Region Signals Projects), estimate the work at each location separately, and create a blended price for the proposal.
- 3. Determine prices for items not determined by Estimator using an alternative method such as Bid Express, past projects, or cost-based estimating (FDM 19-5-5.4.5). Items include:
 - Asphalt pavement items
 - SPV items
 - Items without cost information in Estimator
 - Bid items with (size, location, etc.) examples: Trees (species), Shrubs (species)
 - Bid items that are in the outer quartiles of the Estimator regression curves
- 4. Sort bid items to determine significant items for the contract. This can be done by exporting estimate to Excel and sorting the bid items by the extended bid price or sorting the items in Estimator by the extended bid amount. Significant items make up 80% of the project costs; or the top 20% of items whichever comes first. Significant and non-significant items are fully defined in <u>FDM 19-6-6.6</u>.
- 5. Determine prices for significant items by using multiple data sources such as Estimator, Bid Express, past projects, or cost-based estimating. Statewide average unit prices are not to be used for PS&E estimates.
- 6. Consider the cost effect of constraints (traffic staging, traffic control, time constraints) on the proposal. A more complete list of factors to be considered in more detail are in <u>FDM 19-5-5.6.2</u> Project Characteristics and are listed in the Estimate Documentation Template in <u>FDM 19-5-6</u>.
- 7. Determine estimated prices for non-significant items (item prices not selected in step #5).
 - Spend minimal time on these items.
 - Round Estimator prices.
- 8. While creating an estimate, note decisions and methods used to develop unit prices, and add these notes to Estimator, Quantities 2 Plans Excel file, or other files. These notes will be used to assist in filling out your documentation and as a reminder for how you developed unit prices.
- 9. Provide documentation for estimated costs in the Estimate Documentation Template. Provide an explanation of the project characteristics that influenced estimate prices, how those characteristics were factored in, and ultimately why each price was selected for significant items. Spreadsheets can be attached if used to compare prices from different tools and document why estimate prices were selected.
- 10. Have the estimate reviewed by a project manager, supervisor, construction inspectors, and/or another design engineer. Document the review comments and actions taken, include this as part of the estimate documentation process.

Update construction estimates regularly and at each life-cycle change depending upon region policy. Major items are recommended to be updated every six months, and the entire estimate needs to be updated annually. After PS&E, review major bid items to recent lettings when central office plan review comments are received. See <u>FDM 19-5-5</u> and <u>FDM 19-5-7.3.1</u> for more information.



Note: If the letting date can be moved and the letting still has capacity, move the project's letting into a more favorable letting. Please refer to the regional planning section.

Estimate prices will need to be increased if a project is let in a less favorable month. Estimator already adjusts regression prices by season and do not need to be increased.



FDM 19-10-1 Transmittal of Let Project PS&Es

November 15, 2021

This procedure describes the requirements for transmitting a let project PS&E to central office. Guidance for LFA agreement PS&Es is in <u>FDM 19-25-5</u>. <u>FDM 19-1-1.4</u> contains additional information relating to PS&E submittal timing for WisDOT and non-WisDOT projects. Direct questions to the Plans & Estimates Specialist at (608) 266-1020.

A let project PS&E transmittal consists of an electronic submittal consisting of all required exhibits and must be sent to the BPD using eSubmit.

1.1 Accessing eSubmit

To access the WisDOT eSubmit Application you must have both of the following: 1) A valid Wisconsin User ID in the Web Access Management System (WAMS); and 2) Authorization from WisDOT.

1.1.1 Creating a Wisconsin User ID

To create a WAMS ID, go to:

https://on.wisconsin.gov/WAMS/SelfRegController

and follow the instructions. Individuals, not companies, are associated with the WAMS IDs.

1.1.2 Requesting Authorization from WisDOT

After creating your WAMS ID, send an email requesting eSubmit access to <u>david.domabyl@dot.wi.gov</u> and <u>eric.arneson@dot.wi.gov</u>. Include your full name and phone number in your request. Consultants requesting eSubmit access must also include a 2-sheet ePlan PDF with their request. Sheet 1 must be a title sheet created from scanned hardcopy. Sheet 2 must be a plan & profile sheet created from your CAD system. Both sheets must comply with <u>FDM 15-5-10</u>. If you have a valid ID, and (consultants only) the 2-sheet ePlan complies with the FDM, you will be granted eSubmit access, and a confirmation will be emailed to you.

IMPORTANT: All electronic exhibits must be free of viruses. If an infected exhibit is submitted, the submitter will receive a confirmation that it was sent. However, it will be immediately and automatically deleted and will not be accessible by WisDOT staff.

FDM 19-10-5 Final Review

May 17, 2022

This procedure reviews steps that should be completed prior to PS&E submittal.

5.1 Approval of Plans and Grades

Approval of plans and grades shall be completed prior to the submittal of the PS&E. See <u>FDM 15-1</u> Table 10.2 for plan preparation, acceptance, and approval requirements.

5.2 Cost Effectiveness Finding

When a local unit of government is to construct a highway project with its own forces and equipment under a LFA agreement, a CEF shall be approved prior to submittal of the PS&E. The CEF is covered under <u>FDM</u> <u>3-5-10.9</u>.

5.3 Hazardous Materials

The remediation of hazardous materials should be completed, and project location certified as either within acceptable limits or free of contamination prior to letting the contract to bids where practicable. If remediation during construction would be advantageous, every effort should be made to plan for efficient coordination with construction operations. See <u>FDM 21-35-20</u>.

5.4 Right of Way and Encroachments

The acquisition of all right of way, including PLE, TLE construction permits and right of entry, should be completed prior to submittal of the PS&E.

The disposition of all encroachments should also be determined prior to submittal.

See <u>FDM Chapter 12</u> or the Real Estate Program Manual for detailed information.

5.5 Permits and Environmental Documents

All permits and environmental documents necessary to construct the contract should be completed prior to submittal of the PS&E. See <u>FDM Chapter 20</u> for detailed information.

5.6 Utilities and Railroads

Utility and railroad agreements, utility and railroad land interests and arrangements for moving utilities should be complete prior to submittal of the PS&E. See <u>FDM Chapter 17</u> and <u>FDM Chapter 18</u> for detailed information.

5.7 Justifications

Justifications for cattle passes or other exceptional items should be cleared prior to submittal of the PS&E. Nonstandard items or requirements that do not require formal approval are to be addressed in the Plan Letter.

5.8 Proprietary Products

The use of proprietary products in a contract should be approved prior to the submittal of the PS&E and is documented in project files at the Region. See <u>FDM 19-1-5</u>.

5.9 Constructability Review

Questions or comments about Constructability Reviews should be directed to Bureau of Project Development Construction Standards and Oversight Section Chief at (608) 246-3852.

Constructability reviews are intended to improve the effectiveness of a set of plans and specifications by having those with construction expertise participate in the review. It is generally good practice to conduct these reviews as part of the preliminary plan review. However, a review at the time of PSE can identify issues that can be addressed prior to advertisement of the proposal. Those involved in constructability reviews should be reviewing issues that affect the ability for contractors to understand the plans and specifications well enough to provide well informed bids and meet the Department requirements during construction. Reviewers should also be considering whether the plans and specifications are allowing the contractor to perform the work in the most efficient manner possible, while delivering a high-quality product. Those conducting the reviews should have knowledge of construction practices and the ability to make independent cost estimates of the work elements. If a project has an issue that can benefit from industry input, but does not justify extensive overall review, the local construction industry expertise should also be used.

The AASHTO Subcommittee on Construction has defined the "Constructability Review" as "a process that uses construction personnel with extensive construction knowledge *early in the design stages* of projects to ensure that the projects are buildable while also being cost-effective, biddable, and maintainable."

An effective constructability review process should assure that:

- 1. The project, as detailed in the plans and specifications, can be constructed using standard construction methods, materials and techniques;
- 2. The plans and specifications provide the contractor with clear, concise information that can be utilized to prepare a competitive, cost-effective bid; and
- 3. The work when constructed in accordance with the plans and specifications will result in a project that can be maintained in a cost-effective manner by the agency over the life of the project.

It is recommended that constructability reviews be used on most reconstruction and expansion improvement types and considered for other improvement types, especially if new or rarely used construction technique or material are being implemented.

For further information, see the AASHTO Constructability Review Best Practices Guide at:

http://sp.construction.transportation.org/Documents/AASHTOConstructabilityFinal.pdf

5.10 Bureau Project Review

During the final design phase, staff from various central office bureaus will review specific aspects of the project. These reviews can occur at different times during final design as the different parts of a project are completed.

The checklists shown in <u>Attachments 5.1</u> to <u>5.6</u> identify what items are to be reviewed and who should do the reviewing. As each review is completed the central office reviewer will email the region to certify their review has been performed. Regions will retain these emails in their project file and transcribe the review date into the appropriate box in the Summary of Review Documentation (see <u>FDM 19-10-15.1.26</u>).

5.11 PS&E Pre-Submittal Review

A final PS&E review should be performed by the designer using the PS&E Pre-Submittal Review Guide

provided in FDM 19-40 Exhibit 1.1.

LIST OF ATTACHMENTS

Attachment 5.1	BPD - Quality Review Checklist
Attachment 5.2	BOS – Quality Review Checklist
Attachment 5.3	BHM - Quality Review Checklist
Attachment 5.4	BTS Environmental Section - Quality Review Checklist
Attachment 5.5	BTLRRH - Quality Review Checklist
Attachment 5.6	BTS Acquisitions & Services Section - Quality Review Checklist

FDM 19-10-10 Transmittal of Let Project PS&E Exhibits

May 17, 2022

10.1 Submitting PSE Exhibits with eSubmit

After you have been granted eSubmit access, you may browse to the eSubmit application at:

https://trust.dot.state.wi.us/ESubmit/

From the main "Electronic Submittal System" page, select "Roadway Plans and Exhibits". In the top section of the "Submit Roadway Plans and Exhibits" page, provide required information about the submittal.

<u>Comments</u>: Enter up to 80 characters of special information including any appropriate message for the recipients, i.e., Original, Revision, Insert, Advanceable Plan, Resubmittal per comments, etc. Otherwise enter "NA."

Let Date: Select the year and month in which the project is scheduled for letting. Check ExLET if submitting an advanceable PSE.

<u>Submittal Status</u>: Select the Submittal Status. The choices are: 30%, 60%, 90% (which are for Pre-PS&E) and Final PS&E (which is for a Final Submittal). A list of exhibits generally submitted are provided in Table.1.1. on the following page. Final PS&E and ExLET submittals include all exhibits.

<u>WisDOT Office</u>: Select the WisDOT Region Office. The choices are: Eau Claire, Green Bay, La Crosse, Madison, Rhinelander, Superior, Waukesha, Wisconsin Rapids and Operations. (For Work Share projects, select the "giving" Region).

<u>Construction Project ID</u>: Enter the 8-digit Construction ID using the format: 00000000. Do not enter dashes. Do not enter a Design ID. If there are multiple ID numbers shown on the title sheet of the plan, enter the lowest ID number.

<u>Additional Project IDs</u>: If there are multiple Construction IDs shown on the title sheet and or with the plan, enter the lowest ID on the previous line. Enter the rest of the Construction IDs here. Enter the IDs using the format: 00000000. Do not enter dashes. Do not enter Design IDs. Separate multiple IDs using commas. If there are no additional IDs, enter "NA."

<u>Structures</u>: If there are structures on the project, enter the structure numbers using the format B-00-000 for Bridges, C-00-000 for Culverts, R-00-000 for Retaining walls, S-00-000 for Sign bridges, N-00-000 for Noise Barriers, M-00-000 for Miscellaneous Structures, and P-00-000 for Bridges with no record plans on file. Separate multiple numbers with commas. If there are no structures, enter "NA."

Route Name: Enter the route name (e.g. USH 45).

Project Name: Enter the project name (e.g. CTH Y - 10TH Avenue).

<u>WisDOT Design Contact/Phone</u>: Enter the WisDOT Region Office Design Contact's full name and phone number (e.g., Jane Doe / 608-334-4556).

Consultant Design Contact/Phone: If applicable, enter the Consultant Contact's firm name, full name and phone number (e.g., ABC Consulting Engineers Inc., John Buck / 608-334-4556). Otherwise, enter "NA."

In the middle section of the "Submit Roadway Plans and Exhibits" page, specify the exhibits to submit. At least one exhibit is required. See also <u>FDM 19-10-10</u>.

10.2 Naming Exhibits

Each electronic exhibit must be named using the Construction ID number, with no dashes, plus the 3-letter code shown below indicating the type of exhibit. An underbar "_" must be used between the Construction ID and the

3-letter code. See <u>Table.1.1</u>.

When multiple Construction IDs are shown on a single title sheet, submit all the exhibits under the lowest ID. When multiple plans with multiple title sheets are tied together, submit each plan and SDD spreadsheet individually using the appropriate ID for each.

The eSubmit system appends the Submittal Status, Date and Time to each exhibit as it is copied to the WisDOT network. This suffix serves as the exhibit revision number. The format is SSS_YYMMDD_TIME. SSS is Submittal Status (030, 060, 090 or PSE). YY is Year, MM is Month and DD is Date. Time is in 24-hour format.

For example: a PSE ePlan for project 11302072 submitted at 4:03 PM on September 16, 2005 would be named: 11302072_pln_pse_050916_1603.pdf.

Exhibit	Exhibit File Type and File Name (where 00000000 is the associated Construction ID)	Template File	More Information
Electronic Plan	Adobe PDF 00000000_pln.pdf		FDM 15-5-10
Standard Detail Drawing Spreadsheet	Excel spreadsheet 00000000_sdd.xls	<u>sdd.xls</u>	FDM 15-5-15
Plan Letter	Word document 00000000_ltr.docx	planltr.docx	FDM 19-10-15
Environmental Commitments (<i>including</i> signed cover of environmental document)	Adobe PDF 00000000_env.pdf		<u>FDM 20-20</u> <u>FDM 20-30</u>
Special Provisions or Special Provision Insert	Word document named 00000000_xyz.docx, where xyz is the region office. See Table 1.2. or Word document 00000000_ins.docx	<u>See Special</u> <u>Provision web</u> page for templates	<u>FDM 19-15-1</u>

Table 1.1 Exhibits and Requirements

Exhibit	Exhibit File Type and File Name (where 00000000 is the associated Construction ID)	Template File	More Information
Contract Time for Completion (including LFA contracts)	Excel spreadsheet or Adobe PDF 00000000_tim.xlsx or .pdf	<u>DT1923</u>	FDM 19-10-30
Governor's Approval Form (not required for let projects)	Word document 00000000_gov.doc or .docx	<u>DT25</u>	<u>FDM 19-10-20</u>
Proposal Cover (not required for let projects)	Word document 00000000_pro.doc or .docx	<u>DT1502</u>	FDM 19-10-25
Right-of-Way Certification (remove instructions before submitting)	Adobe PDF 00000000_row.pdf Submit a separate pdf for each Project ID	<u>RE1899</u>	FDM 19-10-35
Utility Status Report (remove instructions before submitting)	Adobe PDF 00000000_usr.pdf Submit a separate pdf for each Project ID	<u>DT1080</u>	FDM 19-10-40
Estimate	Loaded in AASHTOWare Project (AWP) Preconstruction System		(<u>AWP Main</u>)
Proposal Level Preliminary Detail Estimate Report	Adobe PDF 00000000_est.pdf		(AWP Chap 8)
Estimate Documentation Report	Adobe PDF 00000000_esd.pdf	esd-template.docx	<u>FDM 19-5-6</u>
Certificate of Coordination of Railroad Work with Highway Construction	Adobe PDF 00000000_rrx.pdf Submit a separate pdf for each Project ID	<u>DT1804</u>	FDM 19-10-42
Contractor Data Packet	Zip file 00000000_cdp.zip (Due 8 weeks prior to project let date)		FDM 19-10-43
Other Project Data	Submitted directly to the region		FDM 19-10-43

Click the Browse button in eSubmit to the right of each exhibit you wish to submit. When the "Choose file" dialog appears, browse to the exhibit on your computer or network. Repeat until you have specified all the exhibits you wish to submit.

10.2.1 Naming Special Provisions

Note that the Special Provisions are named with a 3-letter code corresponding to the applicable WisDOT Region Office as shown below.

		TUDIC	Region		es and s-retter	00000		
Region Office City	Green Bay	Eau Claire	La Crosse	Madison	Rhinelander	Superior	Waukesha	Wisconsin Rapids
Three-Letter Code	gre	eau	lax	mad	rhi	sup	wke	wis

Table 1.2 Region Office Cities and 3-Letter Codes

10.2.2 Modifying Exhibits

When submitting modified exhibits, the entire document must be re-submitted (except for special provisions). When modifying exhibits, include the words "revised exhibits" on the comments line. A new Date and Time suffix will automatically be added to the eSubmitted filename to prevent overriding previous submittals.

The format is SSS_YYMMDD_TIME. SSS is Submittal Status (030, 060, 090 or PSE). YY is Year, MM is Month and DD is Date. Time is in 24-hour format.

For example: a PSE ePlan for project 11302072 submitted at 4:03 PM on September 16, 2005 would be autonamed: 11302072_pln_pse_050916_1603.pdf.

10.2.3 Modifying Special Provisions

There are two ways to modify special provisions, inserts and revisions.

Inserts are used when there are a relatively small number of changes to the special provisions. Only the portion that is being changed needs to be re-submitted. Modifications should be made to special provisions using inserts whenever possible. Inserts must be named 00000000_ins.doc or docx, where 00000000 is the associated Construction ID. When submitting special provision inserts, include the words "<u>special provision</u> <u>insert</u>" on the comments line, and send an email to the Special Provisions Engineer stating that an insert has been submitted.

When submitting an insert, use the document *Special Provisions Insert* and follow the directions in <u>Insert</u> <u>Guidelines</u> located at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

Preface the changes with detailed directions on where the revised language should be inserted, and, if necessary, which language in the special provisions should be deleted. For example, the directions may state "Delete paragraph three, which begins with the words "*beginning words of paragraph three*," of the existing Utilities article and replace with the following paragraph "*text of new paragraph*." Follow these guidelines for preparing inserts for special provisions:

- 1. If changes are needed to existing articles, provide detailed directions on where the revised language should be inserted, and which language in the special provisions should be deleted. An example is: "In bid item SPV.0060.01, Cleaning and Painting Pole, delete paragraph three in section C Construction. The third paragraph begins with the words "Blast-clean the pole with..."
- 2. If adding an STSP, simply provide the number of the STSP. (Do not send the entire STSP.)
- 3. If deleting articles, provide the title of the article, NOT the article number, because articles are frequently rearranged during the review process. For example, delete the article for bid item SPV.0105.01, Remove Traffic Signals at Intersection (STH 33 and USH 12).

It is preferred that, if possible, changes to special provisions are submitted as an insert. However, it may be necessary when there are so many changes that the entire special provisions document must be re-submitted as a revision. Never submit a revision without first checking with the Special Provisions Engineer.

If an insert is being submitted late in the plan-review process or after the special provisions have been reviewed by the Special Provisions Engineer, notify the Special Provisions Engineer, <u>rielly.odonnell@dot.wi.gov</u> by email, in addition to eSubmitting the insert. If the revision involves a change to a structures special provision, coordinate with both Bureau of Structures (BOS) and the Special Provisions Engineer.

10.3 Submittal

In the bottom section of the "Roadway Plans and Exhibits" page, specify who will receive notification that the submittal was sent. An email notification is sent automatically to WisDOT staff when roadway exhibits are submitted. Recipients are determined based on the Submittal Status selected by the submitter. The email contains the same information that is included on the confirmation page. The submitter also receives a copy of the email notification. It is sent to the email address specified by the submitter at the time he/she created their Wisconsin eSubmit User ID (their extranet ID).

Under "Notify additional affected parties," check the boxes that are applicable for the project. Email notifications will also be sent to appropriate WisDOT staff in those areas.

For workshare projects only, select the "receiving" Region.

Additional email addresses may be entered manually on the "Additional Emails" line. Separate multiple email addresses with commas.

The submitter is *required* to include their phone number as it may be different than the Contact Phone number.

Before clicking the Submit button, review the information you have entered. You will not be prompted to confirm when you press Submit. The submittal will begin immediately.

Click the Submit button once and wait. Exhibits may take several minutes to upload depending on your Internet connection speed.

When processing is complete, you will see a confirmation page like Figure 1.1. If you do not see the confirmation page, the submittal was not successful. Please attempt submittal a second time before contacting 608-266-1020 or the DOT help desk at 608-266-9434.

comments:	PRE-PS&E FOR BUREAU SUBMITTAL
stars:	***************************************
header:	GRE Office 90% 12210971 ROADWAY PLAN SUBMITTAL
stars:	***************************************
<pre>letting_parm:</pre>	01_2021_January
project_name:	MILWAUKEE - GREEN BAY ROAD
route_name:	IH 43
structures:	NA
additional_ids:	45402771
wdot_contact:	PATTI NELSON/920-492-7700
cons_contact:	NA
stars:	***************************************
affects:	AFFECTS
affects1:	
affects2:	
affects3:	
affects4:	Signing
affects5:	Traffic_Control
affects6:	Pavement_Marking
affects7:	
affects8:	
affects9:	
stars:	***************************************
exhibits:	EXHIBITS SUBMITTED
folder:	\\DotDtidN\N4Public\Bhc/PrePSE/gre/
filenaming:	CONST-ID_TYP_PCT_YYMMDD_TIME.ext
eplan:	12210971_pln_090_200605_0927.pdf
sdds:	12210971_sdd_090_200605_0927.xls
pln_letter:	12210971_ltr_090_200605_0927.docx
env_commit:	12210971_env_090_200605_0927.pdf
specials:	12210971_gre_090_200605_0927.docx
time:	12210971_tim_090_200605_0927.pdf
gov_bond:	12210971_gov_090_200605_0927.doc
pro_cover:	12210971_pro_090_200605_0927.docx
row_cert:	12210971_row_090_200605_0927.pdf
util_stat:	12210971_usr_090_200605_0927.pdf
est_docu:	12210971_esd_090_200605_0927.pdf
railroad_cert:	12210971_rrx_090_200605_0927.pdf
estimate:	12210971_est_090_200605_0927.pdf
stars:	***************************************
date:	Friday, June 5, 2020
time:	9:27:16 AM, CDT
name:	Nelson Patti
email:	patti.nelson@dot.state.wi.us
phone:	920-492-7700

Figure 1.1. Sample eSubmit Confirmation Page

10.4 Submitting Structure Plans

Information for submitting structure plans is at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/strct/plan-submittal.aspx

10.5 Error Messages

Review the confirmation page. Verify that it contains no error messages. Two common errors are shown below.

The error "resource not found" or "destination folder does not exist" indicates that the required destination folder at WisDOT does not exist. See Figure 1.2. Contact the individual responsible for receiving the exhibits. Verify that they are expecting your submittal and have created the appropriate folder on the WisDOT network.

stars:	***************************************
exhibits:	EXHIBITS SUBMITTED
filenaming:	CONST-ID_TYP_PCT_YYMMDD_TIME.ext
eplan:	Failed to upload. Resource Not Found
sdds:	Failed to upload. Resource Not Found
pln_letter:	Failed to upload. Resource Not Found
specials:	Failed to upload. Resource Not Found
time:	Failed to upload. Resource Not Found
gov_bond:	
pro_cover:	
row_cert:	
util_stat:	
proj_data:	
other:	
stars:	******************

Figure 1.2. Sample eSubmit Error Report

The error "File not found" indicates that the file specified cannot be found on your computer or network. See <u>Figure 1.3</u>. Verify that the path and filename are correct and try again. This error will also occur when an empty file (zero bytes) is specified.

fileEPlan	Failed to upload. N:\Bhc\EPlans\save\consult\test_data\roadway\98730160_3\98730160_pln.pdf File not found. Please verify path and resubmit.
fileSDD_Spreadsheet	Failed to upload. N\Bhc\EPlans\save\consult\test_data\roadway\98730160_3\98730160_sdd.xls File not found. Please verify path and resubmit.
filePlan_Letter	Failed to upload. N:\Bhc\EPlans\save\consult\test_data\roadway\98730160_3\98730160_ltr.doc File not found. Please verify path and resubmit.
fileSpecial_Provisions	Failed to upload. N\Bhc\EPlans\save\consult\test_data\roadway\98730160_3\98730160_spe.doc File not found. Please verify path and resubmit.
fileTime_for_Complete	Failed to upload. N:\Bhc\EPlans\save\consult\extranet\roadway\98730160_3\98730160_tim.xls File not found. Please verify path and resubmit.
comments:	na
stars:	*********

Figure 1.3. Sample eSubmit Error Report

FDM 19-10-15 Plan Letter

February 15, 2022

A plan letter is to accompany all PS&E transmittals - including both bid contracts and force account agreements. Its objective is to provide BPD the information required to authorize the plan and process the PS&E without delays. It also informs others within the department of the transmittal and its general concepts.

The plan letter template is available at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

The most current version of the plan letter must be submitted at PS&E stage, or the designer will be required to resubmit the letter. The plan letter contains fields for entering required information. The tab key or the up and down arrows on your keyboard allow the user to move from one field to the next field. Text can be copied from other sources and pasted into the form fields. Images and tables should not be copied into a field.

If there are unresolved issues that have been cleared, or changes to the project scope after the final PS&E is submitted, contact the Special Provisions Engineer to determine if a new Plan Letter should be eSubmitted.

15.1 Plan Letter Contents

15.1.1 Header

The plan letter is addressed to the Chief Proposal Management Engineer, BPD. The plan letter includes in its headings, the name and title of the PDS Supervisor who approved the PS&E submittal. Also include the subject project information as presented in FIIPS. The first project title listed must be the controlling project ID, followed by all other project titles. Also include the corresponding design project ID(s), legislative subprogram code, and bid letting date.

15.1.2 Introduction

Include the following information in the introduction:

- 1.Project description i.e. general location and type of work. If the project involves structure work then specify what obstacle the structure is spanning (e.g., Rock River, STH 21, or C&NW Railroad). Major items of work listing should match what is entered under Scope of Work in the Special Provisions.
- 2. Project Requested By or Purpose: Briefly describe the purpose of the project.
- 3. Consequences if not Approved: Briefly provide consequences.
- 4. Contract type (LET or LFA agreement).
- Alternative Contracting Methods Used. Indicate if alternative contracting methods ("enhanced" liquidated damages, interim liquidated damages, incentives/disincentives, cost plus bidding or lane rentals) will be used. Refer to <u>FDM 19-15-2</u>.
- 6. PS&E due date. One of the quarterly dates each year (February 1, May 1, August 1 and November 1) which the PS&E is intended to meet.
- 7. Contract Completion Type: Select the contract type.
- 8. Anticipated construction start date. Obtain this from Form <u>DT1923</u>, Contract Time for Completion. See <u>FDM 19-10 Attachment 30.1</u>.
- 9. Anticipated All Work Complete Date:

Note: The "Anticipated All Work Complete Date" refers to the FIIPS financial field. (This is not the same as the "All Contract Work Complete" that is defined in the Finals Process guidance.)

Local program construction projects:

- Use SMA sunset date

State program construction projects:

- For Completion Date contracts: Use the overall contract completion date plus 12 months. For projects with plant establishment or other warranty periods, add 12 months after end of these periods. (Example: If a project has a completion date of September 1, 2020 and has a one-year plant establishment period that ends October 15, 2021, the date to be entered is 10/15/2022.)
- For Working Day or Calendar Day contracts: Use November 15th of the calendar year in which all work must be complete plus 12 months. For projects with plant establishment or other warranty periods, add 12 months after end of these periods. (Example: If a project has work completed in 2021 and has a two-year plant establishment period that ends October 15, 2023, the date to be entered is 10/15/2024.)
- 10. Performance Miles. Provide the miles of paved surface. Divided highways should not be doubled.
- 11. Name and e-mail address of the regional design contacts for the project supervisor, PDS chief, project manager, project leader, and the contact person for project information after advertising, and (if necessary) the design consultant contact (also include phone number). Contacts must be available to answer questions after the PS&E submittal through the letting process. If contact person changes prior to advertisement, e-submit an updated plan letter with new contact information (note this revision in comment section of e-submit form).
- 12. National highway system. See FDM 4-1-20.2 for definition and map.
- 13. Federal oversight. Reference FIIPS to determine if the project is subject to federal oversight.
- 14. Prequalification should only be waived for unique projects that may have nontraditional contractors bidding on the project. Waiving bidder prequalification requires approval by the Proposal Management Chief.

15.1.3 Pre-Bid Meeting

During project development it may become apparent that extraordinary circumstances connected to the project may be difficult to communicate to the bidders in the usual project documents. When such is the case, a pre-bid meeting may be appropriate. Indicate if the pre-bid meeting is mandatory or optional. If the pre-bid meeting is mandatory it must be identified in the advertisement for bids and should be reviewed with the Bureau of Project Development – Proposal Management Section prior to inclusion.

A pre-bid meeting is usually of value only on projects of a unique or innovative nature and would probably be non-productive on the more routine projects. The date, time, and location of the pre-bid meeting and the topics

to be discussed should be indicated. This information will then be included in the advertisement for bids.

The pre-bid meeting shall be held at least three weeks prior to the letting.

The types of information which could be effectively furnished in this manner are: alternative contracting methods being used, new construction methods required; complex traffic handling requirements; special coordination between contractors or with others; stage construction requirements; site access restrictions during construction; etc. as project aspects may require.

15.1.4 Synopsis of Significant Approvals, Acceptances or Completed Action

Fill in date of approval, acceptance or completed action or N/A if not applicable to the project. If there is more than one date due to multiple project lds, fill in the field with project ld and date for each ld, separated by a comma. (Example:1111-11-11 MM/DD/YYYY, 2222-22-22 MM/DD/YYYY)

For the environmental document, fill in the date of the final environmental document and select one of the following types from the drop-down menu.

- FEIS/ROD
- FONSI
- ER
- PCE
- CEC

15.1.5 Environmental Issues / Commitments

Note any specific commitments made to outside agencies for the purpose of mitigating environmental impacts, and state how the plans and specifications make provisions for them. Also, include the status of required permits.

If there are any commitments for which provisions have not been made, an explanation should be given.

E-submit the Environmental Commitments Sheet of the Basic Environmental Screening worksheets (include the signed cover of the environmental document) with your P.S. & E. submittal. Submit in the following format: 12345678_env.pdf. This information is forwarded to FHWA for oversight projects.

15.1.6 Permits

On projects of a type where a 401 and/or 404 permit could be required, a statement should be included to the effect that either a 404 permit is not required or that a 401 and/or 404 permit is required. If required, state what it is for, the type of permit (including Nationwide No.) and its effective and expiration dates.

If it is anticipated that project completion will extend beyond the 401 and/or 404 permit expiration date, it should be noted. A copy of the special conditions from the 401 and/or 404 permits (including those specified in the U.S. Army Corps of Engineers transmittal letter) should be included in the Environmental Commitments.

15.1.7 Right-of-Way and Utilities

Provide brief status of right-of-way acquisition and relocations (i.e., is acquisition complete? If not, when will it be completed?) or indicate their absence. Indicate if the ROW is clear of encroachments and utilities or, if not, the expected date of clearance. Identify any utility or other outside force work which will be in progress during the construction operations and may affect the contract time. Do not copy the entire utility special provision article into the plan letter.

15.1.8 Sanitary Sewer and Water Main

Provide the status of DNR approval of the sanitary sewer and water main, the status of any grants or loans for these facilities, the status of rights of entry for service connections and the status of any hazardous materials issues.

15.1.9 Railroads

Identify all railroad grade separations, railroad at grade crossings and encroachments on railroad right of way that are located within the contract limits. Indicate if railroad work will be in progress during construction operations. Give the status of all railroad coordination necessary to let the proposal.

15.1.10 Hazardous Materials

Indicate if there are hazardous materials located within the ROW and what steps have been taken to remediate or clean up the contaminated site(s).

15.1.11 Design Data

Deviations from design criteria not previously approved are to be explained here. (Materials, specifications, or special items should be covered in the special provisions portion of the plan letter.)

15.1.12 Structures

List the structure numbers of all structures to be constructed under the contract (e.g., B-40-139) that have been submitted to Bureau of Structures (BOS), which include bridges, culverts, sign bridges, retaining walls, noise barriers, and high mast lighting foundations. Also indicate if there are any structures within the roadway plans that were not submitted to BOS.

15.1.13 Landscape Architecture

Remember to route PS&Es with landscaping to the Roadside Management section in the BHO prior to submittal of the PS&E to the BPD. Include the date of review completion in the SoRD at the end of the plan letter.

Note all the requirements for landscape architecture. This includes:

- Aesthetic design elements for structures that have been identified under "Structures."
- Roadside vegetation management elements:
 - Note landscape plantings to be installed under this contract or a subsequent contract.
 - Note efforts to save existing vegetation.
 - Note roadside clearing to be performed outside of the grading limits.
- Identify who will maintain the plantings after the contract has expired.

15.1.14 Traffic Signals

List all intersections where traffic signals will be constructed under the contract.

15.1.15 Traffic

State how traffic will be accommodated during construction (construction under traffic, detour, etc.). If a detour will be used explain the location and how the signing will be accomplished.

Indicate the approval date for the TMP.

Indicate the date when the Finished Traffic Control Plan & Review Meeting was held, if applicable.

15.1.16 Lighting

State whether lighting is WisDOT or locally maintained. Briefly describe the lighting system (continuous, roundabout, signalized intersections, etc.). Refer to <u>FDM 11-50-60</u> and the electrical/electronic systems (chapter 11) of the Traffic Engineering, Operations and Safety Manual. The Traffic Engineering, Operations and Safety Manual is available at:

https://wisconsindot.gov/Pages/doing-bus/local-gov/traffic-ops/manuals-and-standards/teops/default.aspx

15.1.17 Special Provisions

List any SPV.XXXX.XX bid items in the contract.

15.1.18 Standardized Special Provisions (STSPs)

List any changes that were made to bid items with associated STSPs so that central office staff can be made aware of the modifications. There is no need to list the STSP if the only modifications made were to complete the blank fields within the STSP.

15.1.19 Plans and Proposals

Indicate the region office, and the number of 11" x 17" plans and the number of sample proposals that are needed for contract administration (maximum of 30).

- A. North Central Region has directed a maximum of 20 for those offices (RHI and WIS).
- B. Northwest Region has directed a maximum of 15 for those offices (EAU and SUP).
- C. Northeast Region has directed a maximum of 5 for those offices (GRE).

15.1.20 Sign Details

A. Special Sign Plates. If not done prior to the 90% PS&E Review Process, request a pdf file of all special sign plates from Central Office's Bureau of Traffic Operations by emailing <u>DOTBTOSigndetails@dot.wi.gov</u> a minimum of three weeks prior to PS&E Submittal. B. Standard Sign Plates. Central Office's Bureau of Traffic Operations will review the Signing and Marking portion of the 90% Plans. Be sure to include Signing and Pavement Marking as Additional Affected Parties when submitting the 90% and PS&E Plans. In the plan letter, select "required" or "not required". BTO will insert the required standard sign plates into the Final Plans.

15.1.21 Native American Hiring Provision

Indicate if the Native American hiring provision (see STSP 107-200) should be applied. The current tribe contact information can be found on the <u>WisDOT page for business and labor development</u>.

15.1.22 Additional Special Provisions

Include a list of the ASPs (refer to <u>FDM 19-15-90</u>) that are to be inserted by the BPD when assembling the proposal. ASP4, 6, 7 and 9 are included with every proposal. If ASP 1 is requested, include the number of graduates and apprentices and the total number of hours requested for each category.

15.1.23 Force Account Agreements

Letters for force account agreement projects must state that the submitted agreement is within the policy limits (see <u>FDM 3-5-10</u>). If the agreement exceeds policy limits the letter must include the date of approval of exceptions to the stated policy.

15.1.24 Posting of Preliminary Plans

The criteria below are a guide to help determine if preliminary project information should be shared with industry. Answer the questions listed in this section of the plan letter to determine if preliminary plans will be posted for the project.

BPD will post preliminary plans on the HCCI projects page after PS&E submittal if the project meets one or more of the following criteria:

- Projects with 50,000 CY or more of earthwork.
- Projects with unique structural components.
 - Steel Girders
 - Specialty Steel
 - Large Quantities
 - Accelerated Bridge Construction (ABC)
 - Specialized Construction "Roll Ins" etc.
- Projects over \$20 million in estimated dollars
- Any others deemed appropriate by the region. (Example: Complex Staging)

BPD will add the watermark "PRELIMINARY AND NOT FOR BIDDING PURPOSES" to all posted documents. One week prior to the advertisement, the information will be removed from the website to eliminate confusion with the official bid documents. Items to be posted as preliminary plans may include the following:

- Plans
- Special Provisions
- Soils Reports*
- Digital Models*
- Construction Staging roll plots (for complexly staged projects) *
- Project overview roll plots (for large projects) *

* Documents that are not part of PS&E submittal must be coordinated with the BPD Proposal Management Section at DOT DTSD Highway Construction HCCI (<u>hcci.dtid@dot.wi.gov</u>).

15.1.25 Labor Compliance Prevailing Wage Rate Decisions

Answer the questions listed in this section of the plan letter to assist BPD in determining which Davis Bacon prevailing wage rates need to be inserted into each proposal that contains federal funding.

- BPD will include Highway Construction wage rates (WI10) in all proposals with federal funding.
- BPD will include Heavy wage rates (WI15) in proposals with federal funding that include any type of bridge construction over a US Army Corps of Engineers (COE) navigable waterway. For this section of the plan letter, navigable waterway is determined only by the COE navigable waterway definition (not the WisDNR navigable waterway definition). For information regarding COE navigable waterway see the COE navigable waters list:

http://www.mvp.usace.army.mil/Portals/57/docs/Regulatory/RegulatoryDocs/navigable%20waters% 20wi.pdf

- BPD will include Heavy (Sewer and Water Line and Tunnel) wage rates (WI08) in proposals with federal funding when the engineer estimate for sanitary sewer and water line construction is greater than 20% of the engineer estimate for the overall contract, or when the engineer estimate for this type of work is \$1,000,000 or greater.
- BPD will include Building wage rates (WI various #) in proposals with federal funding that require building trades.

15.1.26 Conclusion

Use this section to explain any unique features of this PS&E that are not addressed in any other section of the plan letter.

When a PS&E is submitted for re-letting after bids are rejected from an earlier letting, use this section explain to the kind of work in the contract (e.g., grading, base, structure, etc.) and what has been changed, such as plan details, special provisions and/or specification requirements, prosecution and progress, and makeup of the contract(s).

15.1.27 PS&E Review Summary

This document is a summary certification of all the reviews the PS&E has undergone from central office staff. This must be filled in for each project to be let.

FDM 19-10-20 Governors Approval Form (DT25)

May 17, 2021

The official name for this document is the Recommendation to Governor for Contract and Bond Approval. The purpose of this form is to obtain the Governor's approval of a contract while the BPD is processing the contract itself. This is not a required submittal for let projects, as it is developed by the Proposal Management Section based on information provided elsewhere.

If needed for other types of non-let projects (i.e. Work Force Account), the responsible bureau or region should create and process this form.

Here is a working copy of form DT25.

Complete the form to the extent indicated in <u>Attachment 20.1</u> using the following guidelines:

- 1. Include any applicable federal project numbers, if known, along with state project I.D. numbers in the upper left box.
- 2. Do not show any values for "Contract Amount" or "WisDOT Confidential Estimate."
- 3. Do not fill in the "Date Let" line if there is a significant chance a project will be moved from one letting to another.
- 4. Bonds are required for all contracts with private contractors. Bonds are not required for contracts with other governmental agencies.
- 5. Fill in only the "State I.D." column of the area entitled "Project Funding Percentages." The other columns should be left blank. The BPD will complete them.
- 6. For the following parts of the form:

Project(s) requested by or purpose: Please focus on the purpose of the project. Explain briefly, but with adequate detail, why this project is being constructed.

Work consists of: A brief description of the work required for the project. Please refrain from using technical terms. Write in such a way that the common person could understand what is being stated. Use enough detail so that the reader can readily understand the relative size and scope of the project.

Consequences if not approved: Explain briefly what would occur if the project is not constructed. For LFA agreements, the cost savings identified by the CEF must be shown. When a programmatic finding applies (see <u>FDM 3-5-10</u>) this must be noted also.

The following are examples of "Consequences if not approved" for LFA agreements:

1. For Agreements > \$25,000

Deficiency will continue, and the roadbed will further deteriorate. A cost effectiveness study conducted with the (County of; City of; Town of; Village of) revealed a cost savings of

\$22,649.46 (12.3%) by having this work performed by the local unit of government versus private contractor.

2. For Agreements < \$25,000

WisDOT with FHWA concurrence has determined through a programmatic cost effectiveness finding dated 8/13/98 that it is in the public interest to have the work be performed by the local governing municipality versus private contractors for projects under \$25,000.

LIST OF ATTACHMENTS

Attachment 20.1 Sample of Form DT25, Governor's Approval Form

FDM 19-10-25 Sample Proposal

August 17, 2020

The sample proposal for a bid contract includes the following:

- Highway Work Proposal (Form <u>DT1502</u>). See the example at <u>Attachment 25.1</u>,
- Special Provisions (FDM 19-15-15),
- Additional Special Provisions (FDM 19-15-90) that are pertinent to the contract,
- Contract language; including language that is appropriate to the funding source for the proposal,
- Appropriate wage rates,
- The Schedule of Items included in the contract.

After PS&E submittal, if funding changes are necessary, contact the Plans and Estimates Specialist at (608) 266-1020. After the proposal is assembled (day of the Ad Meeting, see <u>FDM 19-1 Attachment 1.2</u>), no funding changes will be allowed as contract language added to the proposal directly correlates to the proposals funding source(s).

Form <u>DT1502</u> is available in MS Word format at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

25.1 Completing Form DT1502

- This form is autogenerated by the Proposal Management Section based on information entered in AASHTOWare Project for let projects and is not required as an eSubmittal document. If needed for other types of projects (i.e. Work Force Account), to complete the Highway Work Proposal Form, DT1502, fill in the following fields:
- County, State Project ID, Project Description, and Highway. Enter the project's description exactly as it appears in FIIPS and on the plan's title sheet. If there is more than one project in the proposal, use horizontal spaces to clearly delineate the different projects.
- Proposal Guaranty Required. Obtain the amount from the table below:

Proposal Guarantee			
Construction Cost Estimate*	Proposal Guarantee		
0 - 75,000	\$ 2,000		
75,000 - 150,000	\$ 6,000		
150,000 - 500,000	\$ 20,000		
500,000 - 1,000,000	\$ 40,000		
1,000,000 - 5,000,000	\$ 75,000		
5,000,000 - 10,000,000	\$100,000		
> 10,000,000	To be determined		

* This amount does not include engineering and contingencies.

- Bid Submittal Due, the letting date. Do not abbreviate the month; spell out the month's complete name.
- Contract Completion Time, the number of calendar days, working days, or the completion date of the contract (see <u>FDM 19-10-30</u>); for example, Thirty (30) Working Days, Ninety (90) Calendar Days, or

November 10, 2010.

- Type of Work. Indicate the major work classification(s) of the contract, e.g., grading, base aggregate dense, Structure (Number), concrete pavement, HMA pavement, pavement marking, permanent signing, traffic signals, lighting, ITS, and storm sewer.

The BPD will complete the federal project ID field and will mark whether there is federal oversight on the project.

The sample proposals (contract) for LFA agreements are covered in FDM 19-25.

LIST OF ATTACHMENTS

Attachment 25.1 Sample of Completed DT1502 Form Highway Work Proposal

FDM 19-10-30 Contract Time for Completion (DT1923)

May 17, 2022

30.1 General

A completed Contract Time for Completion (Form <u>DT1923</u>) is required for all bid contracts and negotiated agreements. An example is included as <u>Attachment 30.1</u>. ESubmit a single DT1923 file encompassing all project work. Multiple worksheets can be used within the file.

After the Contract Time for Completion is eSubmitted to Central Office as part of the final PSE, updated forms can be eSubmitted up to 7 weeks ahead of the scheduled letting date. If eSubmitting an updated form, always contact the Proposal Management Section to provide the reason for the update.

30.2 Contract Work Type

The contract should be analyzed in sufficient detail to determine a reasonable contract time. Contract time can be set up based on working days, calendar days, or by specifying a completion date. In any case, four to six weeks should be estimated between the letting date and the start of work.

In Form <u>DT1923</u>, select the Contract Work Type by checking the appropriate box.

Calendar Day. Every day on the calendar, which includes Saturdays, Sundays, and holidays. This is one of the preferred methods of establishing contract time when an Interim Liquidated Damages provision is included in the contract.

Contract time shall be rounded to the nearest five days. Contract time suspensions ordered by the engineer and/or the days required for certain excluded work operations are not included within this total.

Working Day. This is a calendar day, except for Saturdays, Sundays and specified legal holidays, on which weather and conditions not under the control of the contractor will permit construction operations to proceed for at least eight hours with the normal working force engaged in performing the controlling item of work which would be in progress at this time. The controlling item is that item which must be partially or wholly completed to permit progress essential to complete the contract within the number of working days allowed. See <u>Standard Spec 108.9</u> for construction details related to working day contracts.

The working days method is preferred for establishing contract time for a normal construction project. Working day contracts equitably provide for those projects where relatively minor weather changes greatly influence work progress, or where there are frequent delays occasioned by other contracts, material delivery, or operations beyond the contractor's effective control.

Contract time shall be rounded to the nearest five days.

Completion Date. The calendar date shown in the proposal on or before which the work contemplated in the contract shall be completed. No time extension allowances are made for normal delays or lack of progress.

A completion date is preferred when an Incentive/Disincentive provision is used in the contract.

A completion date contract should be considered in any of the following situations:

- 1. When stage construction contracts must closely follow one another to meet a desired open-to-traffic date.
- 2. When the timing of a special event is the critical factor in determining the desired completion date.
- 3. When the contract work is expected to extend over multiple construction seasons.
- 4. When the Interim Liquidated Damages provision is included in the contract.

Designers should avoid requiring unjustifiably high rates of operation progress through improper selection of an early completion date. The normal procedure is to select the completion date from a working day type time

analysis, taking into consideration the desired reasons for specifying the use of a completion date.

30.3 Contract Time

Form DT1923 is based on anticipated work days. Possible Work Days are determined by removing the weekends and holidays from the month. If work is expected to be done on weekends or holidays for Calendar Day or Completion Date contracts, days can be added back into a month under Additional Work Days Modifier, which will adjust the possible work days. Then enter the weather-based Probable Work Days for a month (See <u>Attachment 30.2</u> to determine weather-based probable work days.)

Holidays shall be New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Eve Day, Christmas Day and New Year's Eve Day. Independence Day may be more than 1 day in duration, depending on the day of the week. See <u>FDM 19-15-23.1</u>.

30.4 Factors Influencing Contract Time

Probable work days in a month are the possible weekdays available for work multiplied by a weather-based percentage factor established on past experience for the major construction operation being performed. A percentage factor chart is included as <u>Attachment 30.2</u>. It may be used directly or with minor modification to reflect regional weather conditions.

Production Rates. There are two methods production rates can be estimated. The preferred way is the production estimation tool. The other method is the production rate table, which is used for a quick, unrefined estimate of production rates.

The production estimation tool will provide the most realistic production rates. The tool considers variety of design project attributes and data entered by WisDOT construction staff to predict the estimated production rates. The tool has production rates broken into the following categories: bridge construction, earthwork, asphalt paving, concrete paving, earthwork, miscellaneous activities, and other considerations.

To access the production estimation tool, use the following link:

https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/tools/estimating/productivityestimation-tool-v.1.xlsm

The production estimation tool contains information and instructions on how to use the tool.

The production rate table uses a range of rates from the production rate tool without taking project attributes into consideration, therefore making less accurate. The ranges have the outliers removed and the typical (median) production rate is shown. The table is at the following location:

https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/tools/estimating/production-ratetable.pdf

Engineering judgement is required for choosing a production rate. The production rates should be tailored to meet the conditions of each individual contract. Consideration should be given to the size of work areas, time of year constructed, congestion due to traffic, etc. For instance, a low production rate should be chosen for items being completed with short runs.

Utility and railroad adjustments are usually planned to occur prior to construction operations to avoid interfering with the contractor's construction schedule. Occasionally, utility or railroad facility adjustments must be performed during construction operations. If these adjustments delay the start of construction, or impact the contract progress during construction, time should be accounted for in the contract time for completion. The regional utility or railroad coordinator should be consulted as necessary.

Form DT1923 has a worksheet tab to use on projects where work by a utility or railroad impacts the timeline of the project. Use this worksheet to show how the work will affect the progress of the project.

Temporary structures. When a temporary structure is required to keep the highway open to traffic, a sufficient amount of time should be included in the contract time for the construction of the temporary structure. This time should be shown on the contract time chart.

Curing and protection of concrete. Include the contract time required to ensure concrete is sufficiently cured and has developed adequate strength to support subsequent construction operations without damage to inplace work. Also include time required before bridge decks can be sealed.

Exclusion from Contract Time Charge

Operations excluded from the contract time charges are those occurring prior to and following the major operations of the contract, a brief list of these is as follows:

- 1. Construction Staking, initial layout before grading work begins.
- 2. Move-in of equipment by the contractor.
- 3. Clearing, grubbing, stripping and subsequent final clean-up of aggregate pits or quarries, borrow or subbase pits.
- 4. Delivery, installation and removal of temporary traffic control devices.
- 5. Exploratory digging of test holes.
- 6. Construction, maintenance and subsequent obliteration of access roads to pits or quarries.
- 7. Setting up and dismantling of crushing, asphaltic or concrete batching or mixing plants.
- 8. Preliminary blasting or crushing for test samples.
- 9. Watering sod, when performed after completion of all sod replacement and all other construction work is completed. The 10-day watering requirement remains in effect, however.
- 10. The production of aggregate stockpiles when no other work is in progress nor has been ordered to start.
- 11. Repairs to equipment performed at the work site prior to the start of work during official suspension or after contract work is completed.

LIST OF ATTACHMENTS

Attachment 30.1	Sample DT1923, Contract Time for Completion
Attachment 30.2	Percentage Factors for Probable Working Days

FDM 19-10-35 Certificate of Right of Way (DT1899)

August 17, 2020

The FHWA has established rules and regulations that must be followed by state and local agencies when acquiring highway right of way where federal aid funds are used. A Certificate of Right of Way (DT1899) shall always accompany the PS&E transmittal. Note: At the time of this writing, an additional step is being implemented on a trial basis where an exception report is being required at the time of the PS&E to try and address any issues that may prevent a project from meeting all requirements for advertisement and letting. See FDM 19-1-3 for more about the project letting process.

** When finished filling in the <u>RE1899</u>. Please convert to a PDF per instructions on the bottom of the form.

35.1 Right-of-Way Clearance

The status of ROW is reported using the Certificate of Right of Way (<u>RE1899</u>). <u>Attachment 35.1</u> shows a copy of this form with detailed instructions for completing. A separate document must be submitted for each Project ID. An electronic copy of this form is available from the Real Estate Program Manual (REPM) at

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/re/repm.aspx

The top half of this form (see items marked #1 - 16 on <u>Attachment 35.1</u>) is always completed by the organization that is designing the project (either the region or the consultant); however, only WisDOT is authorized to verify and approve the information given. Further processing of this form depends upon the project circumstances.

35.1.1 No New ROW Required

If there is no new land interest being acquired (either permanent or temporary), then the regional project development unit representative should check the appropriate box and type their name in section 17. Only WisDOT is authorized to verify and approve the information given on the certification. The form should then be added to the PS&E package.

35.1.2 New ROW Is Required

If the project does require the acquisition of new land interests (either permanent or temporary) then the regional project development unit representative should check the appropriate box and type their name in Section 17. Only WisDOT is authorized to verify and approve the information given on the certification. The form should then be sent to the regional technical services' real estate unit for completion of sections 18 - 21. The responsible regional real estate representative will fill in their name in Section 21. Only WisDOT is authorized to verify and approve the information given on the certification. When all sections have been completed the form should be added to the PS&E on-line transmittals in accordance with FDM 19-10-1.

LIST OF ATTACHMENTS

Attachment 35.1 Certificate of Right of Way

FDM 19-10-40 Utilities Status Report (DT1080)

The information contained in the utility status report (USR) (Form <u>DT1080</u>) provides data relative to utility facilities within the project and the status of utility parcels and agreements. A separate document must be submitted for each Project ID. See <u>FDM 18-10-40</u> for guidance on creating a USR and a sample of one.

When finished filling in the <u>DT1080</u>. Please convert to a PDF per instructions on the bottom of the form.

40.1 Utility Clearance

The utilities status is reported by the region. The status of non-parcel utility facilities should also be included. Where utility adjustments or relocations have been performed prior to the PS&E. transmittal date, the special provisions should contain current information.

FDM 19-10-42 Certification of Railroad Coordination with Highway Construction August 17, 2020

A Certificate of Coordination of Railroad Work with Highway Construction (<u>DT1804</u>) is required for all project PS&E submittals regardless of if there are railroad impacts. A separate document must be submitted for each project ID.

The Regional Railroad Coordinator and/or the WisDOT Project Manager are responsible for completing the <u>DT1804</u> form at PS&E. The Regional Railroad Coordinator shall sign the <u>DT1804</u>. The Railroads and Harbor Section (RHS) within the Bureau of Transit, Local Roads, Railroads, and Harbors (BTLRRH) will review the <u>DT1804</u> prior to clearing the project within psetrak.

Convert the completed <u>DT1804</u> form to a PDF prior to eSubmitting.

FDM 19-10-43 Digital Data Exchange and Project Data Awareness

November 15, 2022

August 17, 2020

43.1 General

Digital Data Exchange provides a way to use highway project data with standard formats in survey and engineering software during construction and for future design projects.

This procedure describes the requirements for submitting the Contractor Data Packet, submitting Civil 3D project data, reviewing the submitted project data and archiving the project data. No physical documentation is sent to central office as part of the submittal. All questions about the content of this procedure should be directed to Methods Development at support.cae@dot.wi.gov.

43.1.1 Application

The requirements of this procedure apply only to projects on the state trunk highway system. For consultantdesigned projects, these requirements apply to two-party contracts only.

- Projects that have solicitation dates and FIIPS Life Cycle set to 11 (for internal projects, FIIPS Life Cycle set to 11) before July 1, 2014 can submit project data either in MicroStation/CAiCE or AutoCAD Civil 3D formats.
- Projects that have solicitation dates and FIIPS Life Cycle set to 11 (for internal projects, FIIPS Life Cycle set to 11) after July 1, 2014 shall submit digital data in Civil 3D formats and be developed in AutoCAD Civil 3D software.

43.1.2 AutoCAD Civil 3D Mandate Notification

The use of AutoCAD Civil 3D software and file formats native to it will be required on most highway projects. Further information is included in <u>Attachment 43.1</u>.

43.2 Contractor Data Packet Submittal

After the PS&E has been reviewed and corrected, but no later than 8 weeks prior to project let date, the designer shall submit the entire Contractor Data Packet through the eSubmit system (See <u>FDM 19-10-1</u>). The Contractor Data Packet files shall be zipped into a single file and named <ConstructionID>-cdp.zip. The Civil 3D project subfolder ConstData should be the top folder within the zip file. Submit the .zip file using the lowest construction ID when multiple construction IDs are shown on a single title sheet.

Example: A project with a construction ID of 00000000 shall be submitted as 00000000-cdp.zip.

43.2.1 Digital Data

The designer shall create a Contractor Data Packet for each let project with a geospatially accurate reference alignment. Submitted data required for a project is dependent on the scope of the project. See Table 43.4 for recommended data by project type. See Table 43.3 for accepted file formats. Unused layers and referenced data should not be included in the Contractor Data Packet.

The Contractor Data Packet shall also contain a metadata document that lists all files submitted. An electronic copy of the metadata template (WisDOT-C3D-ContrDataPack-Meta.docx) can be found at <u>WisDOT Civil 3D</u> forms.

A feedback survey is available to the contractor on the <u>HCCI website</u> under the advertisement page for each bid letting. The purpose of the survey is to offer contractors the opportunity to provide feedback regarding the electronic design data provided for the construction project.

43.3 Consultant Project Data Submittal

After the PS&E has been reviewed and corrected, the consultant designer shall submit the Civil 3D files used to develop the final design for the let project. All digital data required by this procedure shall be delivered as specified by the Region and uploaded to the Box project folder. The Civil 3D project shall be zipped into a single file and named <DesignID>-c3d-proj.zip. The Civil 3D project folder should be the top folder within the zip file.

Example: Civil 3D project named 00000000 should be archived to 00000000-c3d-proj.zip.

43.3.1 Digital Project Data

Submitted data required for a project is dependent on the scope of the project. See Table 43.4 for recommended data by project type. See Table 43.3 for accepted file formats.

The project data submittal shall also contain a metadata document that lists all files submitted. An electronic copy of the design metadata template (WisDOT-C3D-DesignData-Meta.docx) can be found at <u>WisDOT Civil 3D</u> <u>forms</u>.

43.3.2 Digital Project Data Confirmation

After receiving electronic project data from a consultant, the data must be confirmed by personnel at the Region. This confirmation involves verification that the formats of the files sent follow the standard formats outlined in this procedure. The confirmation does not imply that the electronic data received matches the information shown on the plan submitted as part of the PS&E, nor does it verify that the design is valid and follows design standards set by the Department. The confirmation does not release the consultant from responsibilities related to the constructability and validity of the design.

The confirmation of electronic project data must take place within a month of receipt of the data from the consultant. An electronic copy of the confirmation checklist (WisDOT-C3D-Checklist.docx) can be found at <u>WisDOT Civil 3D forms</u>. After the data has been received and verified, correspondence confirming the receipt and acceptance of this data will be sent to the consultant by the Region.

43.3.3 Project Archive

After the submitted project data confirmation has occurred, it is then the responsibility of the Region to store the data in the designated DTSD archived projects folder on Box.

43.4 File Formats

43.4.1 AutoCAD Civil 3D DWG Specifications and Parameters

All files submitted as Civil 3D DWG shall be fully compatible with AutoCAD Civil 3D 2022 or earlier. Files shall be created from file templates provided by WisDOT. These can be found at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/cad/civil-3d.aspx

The following table describes further information for requirements and options within an AutoCAD Civil 3D DWG.

Table 43.1 WisDOT AutoCAD Civil 3D DWG Feature Requirements and Options

Feature/Object	Requirements/Options
Layers	Custom layers that are based on standard layers to allow for finer control of data are allowed. Example: The custom layer P_ALI_STH25 could be created based on the layer P_ALI.
Linetypes and fonts	Only WisDOT-provided linetypes and fonts shall be used.
Text, dimension, multi- leader, AutoCAD table, Civil 3D label, and Civil 3D table styles	Custom text-based styles that use WisDOT layers, linetypes, and fonts are allowed.
Blocks	Custom blocks that use WisDOT layers, linetypes, and fonts are allowed.
Layouts	Layouts used in plan sheets shall be created from WisDOT layout templates.
Non-survey Civil 3D object styles	Custom styles for non-survey Civil 3D objects that use standard layers, linetypes, and fonts are allowed.
Civil 3D survey points, survey figures, point description key sets, and figure prefix database	Only WisDOT-provided settings for survey databases, description keys, and styles for survey points and figures shall be used.
Plot styles	Only WisDOT-provided plot style tables shall be used for plan sheet plotting.
Pipe network catalogs and part lists	Only Autodesk-provided or WisDOT-provided pipe network catalog and parts shall be used. Pipe network part catalog shall be submitted.
	Subassemblies provided by Autodesk and WisDOT are acceptable. Custom subassemblies are acceptable with the following requirements:
	The custom subassembly is developed in Autodesk Subassembly Composer.
	The pkt file for all custom subassemblies is included along with each project delivery that uses the custom subassemblies.
Subassemblies	The subassembly follows established naming conventions for point, link, and shape codes. See WisDOT and Autodesk subassembly help file code diagrams for more information on established corridor code naming conventions.
	Custom subassemblies used on WisDOT projects are part of the project data submittal. Intellectual property rights associated with the custom subassembly are forfeited. The Department assumes full ownership rights of the subassembly. WisDOT may use the subassembly on any future project. WisDOT may openly share the custom subassembly with the public, including it in the Civil 3D standards files packages for distribution.
	Help documentation structured in a fashion similar to WisDOT subassembly help files shall be submitted. Help files must be delivered in Word docx format.
Coordinate Systems	Assigning a coordinate system to DWG files is not required.
DWG Unit Settings	Drawing Units shall be set to "Feet." Imperial to Metric conversion shall be set to "US Survey Foot (39.37 Inches per Meter)."

43.4.2 DWG References

Data connections within a Civil 3D project shall be intact upon delivery to the Department. To ensure this, all xreferences between files in a Civil 3D project shall be relative and not full path or no path. Also, unless there is a specific reason to do otherwise, xreferences should be of an overlay type and not an attachment type to avoid circular references.

43.5 Categories of Digital Data Exchange

Field Control Data	Data in this category are used to establish survey control in the field. Field control points are physical points collected in the field, not points created by a designer. Data must be provided in the coordinate system specified for the project. Points to include are those with feature codes classified as field control in <u>FDM 9-25-10</u> .
Existing Surface Data	This category includes existing surface data. It is created from data collected in the field and used by design.
Existing Topography - General	This category includes point and figure information pertaining to topographic information, other than utilities. This includes but is not limited to, fences, tree lines, and waterways.
Existing Topography - Utilities	This category includes point and figure information pertaining to utilities such as gas, telephone, and storm sewer. WisDOT standard feature codes shall be used for the data in this category.
Reference Line Data	This category includes all mainline and side road reference line data, and the project control necessary to establish such reference lines.
Reference Profile Data	This category includes profiles of any reference lines as specified for the project.
Superelevation Data	This category includes information on locations of the superelevation transition points along an alignment. The minimum number of transition points, which must be included, are the beginning and ending of normal crown, reverse crown, and the beginning and ending of full superelevation.
Proposed Point Data	This category includes points provided in plan detail sheet tables. Examples include intersection and curb ramp details. Other design points shown in the plan that are not in a table may be provided as well but is not required. Projects completed in Civil 3D 2019 and earlier are excluded from this requirement.
Proposed Roadway Features	This category includes proposed physical features of the roadway. This includes but is not limited to edge of pavement, shoulder edges, curb and gutter, and slope intercepts.
Proposed Structure Horizontal Features	This category includes proposed physical features of the structure(s). This includes but is not limited to structure geometrics, pavement, shoulder, sidewalk, structure roadway widths, parapets, abutments, wingwalls, piers, and footings. This does not need to include reinforcement details, piling locations, and girders.
Proposed Surface Models	 This category includes all data associated with proposed design surfaces. It includes the following: Complete surfaces for each feature model in design Outer boundaries of the surfaces Longitudinal breaklines and surface points that create the surfaces
Proposed Cross Section Data	This category includes cross section data of the proposed datum surface. Surface feature names in the cross-section files must follow department standards. All cross-section data submitted must have corresponding reference line information submitted as well.
Earthwork Data	This category includes the tabular data in the plan's computer earthwork data sheets, immediately preceding the cross sections in the plan. Data includes incremental end areas, incremental volumes, cumulative volumes, expanded volumes and expansion factors for; cut, fill, marsh excavation, rock excavation, and EBS; cumulative mass ordinate.
Right-of-Way Monumentation Data	This category includes all existing and proposed right-of-way alignments and points to be staked including those considered to be FEE, PLE or TLE locations. This data is only the right-of-way information as submitted in the let project and should not be relied on as current right-of-way data.
Other Survey Data	This category of data is for those survey items not included in any of the other categories.
Graphical Information	Information in this category is contained in AutoCAD Civil 3D DWG files not defined in another category. It contains DWG files used to create plan sheets, and DWG files which contain the plan sheets themselves.

Table 43.2 Digital Data Exchange Categories

43.5.1 Digital Data Formats

For each of the data categories, standard digital formats have been established. The acceptable formats for each category are described below. Note that any standard format in the various categories must be accepted. Unless a mutual agreement has been made between the consulting firm performing the project work and the appropriate region office, a preferred format cannot be mandated. Refer to <u>FDM 15-5-3</u> for file naming standards.

	AutoCAD Civil 3D format (design files)	AutoCAD Civil 3D export format (Contractor Data files)
Field Control Data	Civil 3D survey points in a format to be imported into or in a survey database (*.xml, *.pac, *.sdb)	LandXML v. 1.2 exported from Civil 3D object files
	*.wsi file	
	Raw data files from data collectors	
	Appropriate field collection notes	
	See FDM 9 for more information.	
Existing Surface	SRV file from Central Office Technical Services	LandXML v. 1.2 exported from Civil
Data	Civil 3D surface object	3D object files
	Civil 3D survey points and survey figures in a format to be imported into or in a survey database (*.xml, *.pac, *.sdb)	AutoCAD v. 2010 file including 2D or 3D polyline of surface boundary
	Raw data files from data collectors	
	Appropriate field collection notes	
Existing Topographic	AutoCAD Civil 3D DWG file from Central Office Technical Services	Basic AutoCAD v. 2010 files of topography files.
Data - General and Utilities	Civil 3D survey points and survey figures in a format to be imported into or in a survey database (*.xml, *.pac, *.sdb)	
	Raw data files from data collectors	
	Appropriate field collection notes	
Reference Line Data	Civil 3D alignment objects in a DWG.	LandXML v. 1.2 files exported from Civil 3D alignments. This file should also contain the profiles and superelevations. A single LandXML alignment/profile file per LET project is preferred.
Reference Profile Data	Civil 3D profile objects in a DWG.	LandXML v. 1.2 files exported from Civil 3D profiles. This file should also contain the alignments. A single LandXML alignment/profile file per LET project is preferred.
Superelevation Data	AutoCAD Civil 3D DWG file using alignments with superelevation.	.csv or .xlsx file exported from Civil 3D
Proposed Point Data	AutoCAD Civil 3D DWG file	LandXML v. 1.2 file(s) exported from Civil 3D.
Proposed Roadway Features	2D Civil 3D and/or AutoCAD objects (alignments and 2D polylines preferred)	Basic AutoCAD v. 2010 files of 2D polylines.
Proposed Structure Horizontal Features	Basic AutoCAD files of 2D polylines.	Basic AutoCAD v. 2010 files of 2D polylines.

Table 43.3 Digital Data Exchange Accepted Formats by Category

	AutoCAD Civil 3D format (design files)	AutoCAD Civil 3D export format (Contractor Data files)
Proposed Surface Models	Civil 3D surfaces built from corridors refined with feature lines and gradings as needed.	LandXML v. 1.2 files exported from Civil 3D
		AutoCAD features exported from Civil 3D surfaces into individual Basic AutoCAD v. 2010 files: - 2D or 3D polylines of surface boundary - 3D polylines (breaklines) and COGO points of features that
		created the surface
Proposed Cross Section Data	Civil 3D section view groups and associated layouts in a DWG.	Datum surface slope stake reports for all cross-section groups in the plan. See <u>Contractor Data - Slope</u> <u>Stake Report</u> for creation method and format.
Earthwork Data	Microsoft Excel .xls or .xlsx file	Microsoft Excel .xls or .xlsx file
Right-of-Way Monumentation Data	Civil 3D point, alignment, and parcel objects in a DWG. Parcel objects shall have Owner information and Interest required filled out. Volume/Page/Document information should be filled out when known.	Basic AutoCAD v. 2010 files exported from Civil 3D of existing and proposed right of way and easement alignments.
		LandXML v. 1.2 files exported from Civil 3D existing and proposed right of way and easement points. A single LandXML RW points file per LET project is preferred.
Other Survey Data	Civil 3D survey points and survey figures in a format to be imported into or in a survey database (*.xml, *.pac, *.sdb)	Only if applicable, basic AutoCAD v. 2010 files exported from Civil 3D survey points and survey figures.
	Raw data files from data collectors	
	Appropriate field collection notes	
Graphical	AutoCAD Civil 3D DWG file	Not applicable
Information	Usage of WisDOT line types, fonts, layers and other display characteristics.	
	Data must be located in applicable coordinates and be coordinate correct.	

43.6 Guidelines on Data Requirements by Project Type

The following guidelines have been established so that region personnel writing consultant contracts can determine what type of digital data is needed for each specific consultant project.

Each highway improvement project is unique, but most can be defined by one of the eight general categories listed below.

- 1. Bridge Rehabilitation
- 2. Bridge Replacement
- 3. SHRM
- 4. Resurface
- 5. Pavement Replacement
- 6. Reconditioning
- 7. Reconstruction
- 8. Expansions and Majors

Each project has its own unique digital data needs. Therefore, digital data requirements should ultimately be determined on a project-by-project basis during project scoping. Only that data which is anticipated to be needed later should be requested so as not to detract from the intent of the requirement.

The table below lists recommendations for data to be requested for each project type.

	Bridge Rehab.	New / Repl. Bridge	SHRM	Resurf.	Pav't Repl.	Recond.	Reconst.	Expansion & Majors
Field Control Data	х	X			х	х	Х	x
Existing Surface Data	х	х			Х	х	х	x
Existing Topographic Data - General and Utilities					х	х	х	x
Reference Line Data	х	х	х	х	х	x	х	х
Reference Profile Data	х	X X			х	x	х	x
Superelevation Data		X New Only	х	x	х	x	х	х
Proposed Point Data	Х	X			Х	X	Х	Х
Right of Way Monumentation Data		X New Only				x	х	х
Proposed Roadway Features		X New Only			х	x	х	х
Proposed Structure Horizontal Features	x	x			х	x	х	x
Proposed Surface Models	х	х			х	x	х	х
Proposed Cross Section Data	х	х			х	x	х	х
Earthwork Data	Х	Х			Х	X	Х	х
Other Survey Data								
Graphic Information		X New Only			х	x	х	х

Table 43.4 Recommended Electronic Project Data by Project Type

In the category of Other Survey Data, no recommendation on when to request this data is given in the table. This data category is used only when required survey information does not fall into any of the other categories, which is not generally predictable.

It should be assumed that all graphical files needed to recreate the entire plan set are required on projects where graphical files are requested. Individual contracts may specify less Graphical Information when warranted.

On projects where earthwork is paid lump sum, or if a job has less than 10 cross sections, a graphical representation of the proposed cross section may be sufficient. However, it is recommended that all Pavement Replacement and Reconditioning projects require one of the electronic cross section data formats given.

LIST OF ATTACHMENTS

Attachment 43.1 Civil 3D Specific Design Deliverable Requirements

FDM 19-10-45 Changes to Consultant Plans

45.1 Purpose

To establish procedural guidelines to be followed when changes are required to plans developed by consultants. The guidelines are intended to assure that all inputs are recognized and considered and that all parties are appropriately involved and have necessary documentation available to them.

45.2 Statement of Problem

Consultants who have designed plans for WisDOT administered projects are concerned that, on occasion, the plans have been changed without their knowledge or input. The consultant's concern is primarily directed to significant design concepts or detail changes. When plans are changed without the consultant's knowledge the design may be compromised or local input may be circumvented.

Other less significant, but important changes have on occasion, been necessary and made without communication with the consultant. The consultants also want to be informed of these types of changes because they are liable for the complete design.

The consultant community has also expressed a need to be informed of all secondary or "housekeeping changes." In these cases, important knowledge and opportunity for education will be missed unless the consultant is informed.

The consultant community is concerned about liability, reputation and the opportunity to gain experience and knowledge. In the spirit of the consultant community being a supplement to the WisDOT staff, these guidelines are being established to enhance two-way communications between the consultant designer and WisDOT design and construction staff relative to plans and contract documents.

45.3 Project Development

Regular meetings between the consultant and WisDOT staff during project development appear to reduce the need for changes to the final plan. Improved communications should be the goal.

45.3.1 Pre-Final Plan

To permit time for an orderly review process without creating a crisis situation, the consultant should submit a pre-final roadway plan to the respective region a minimum of two months before the PS&E is due at the region office. The plan should include quantities, traffic control and most of the construction details.

There should be frequent communications between the designer in the consultant's office and the project reviewer/coordinator in the region office during the final plan work by the consultant.

45.4 Region Activities

The complete PS&E is due at the region office a minimum of 4 weeks prior to the scheduled CO PS&E due date. If the PS&E documents, including final plans, arrive at the region office by the scheduled date they will be given priority attention. If the PS&E documents arrive late the region reviewer/coordinator will be involved with other scheduled work and the PS&E review will wait until time can be scheduled, perhaps resulting in a missed letting date.

During the final plan/PS&E review, communications should be directly between the region reviewer/coordinator and the project designer. The consultant's staff should make all corrections and/or changes that are required. If possible, the corrections/changes should be made and submitted by the consultant electronically to avoid delaying the project. If the region staff feel they must correct or change a consultant plan, they review the proposed changes with the consultant's staff. The region shall then send copies of the revised plan sheets to the consultant, along with a summary of the changes/corrections.

If possible, the consultant should make the corrections/changes in the region office, to avoid rescheduling the project. If changes or corrections are suggested by CO, the region should contact the consultant to discuss the concept of the requested changes. The region will then respond to the CO. The consultant should make any corrections or changes at this time as described above.

Appropriate consultant staff should be invited to the region office to review the marked print and draft sample proposal after it is received from the CO.

The region should review the preliminary electronic data file list, provided by the consultant, to determine if the consultant has identified all necessary files. If any additional files are needed the region should document them

and provide and updated list to the constant. The consultant then submits electronic copies of all data files on the updated list to the region after final review of the plan by CO.

Copies of bridge plans from central office bridge should be forwarded to the consultant after review by region staff. A copy of the final plan and a copy of the final sample proposal should be forwarded to the consultant by the region when they are received from the central office. A copy of any addendum issued during the advertising period should be forwarded to the consultant by the region when they are received from the consultant by the region when they are received from the CO.

45.5 Bureau of Structures Activities

Completed structure plans should be submitted to the Structures Design Section a minimum of two months before the PS&E date. The reviewer may contact the consultant during review process to get additional information to justify non-standard or unusual details.

After checking the final structure plans, the consultant plan reviewer in central office will contact the consultant as necessary to resolve discrepancies.

All plans receive an additional cursory review by the Chief Structural Design Engineer before being submitted to the Proposal Management Section. This review is primarily to determine the need and adequacy of special provisions and the consistency of bid items. Changes in bid items are normally editorial in nature and the consultant is not contacted.

Substantive changes, involving structural elements and details, are discussed with the consultant.

45.6 Bureau of Project Development

PS&Es should not be submitted to BPD unless they are complete and checked by the consultant and region. Region/consultants should not anticipate making additions or corrections after submittal nor expect that BPD staff will catch errors/oversights during the review.

Substantive changes should be discussed between CO project development engineers and region design personnel. Editorial changes for clarity and correction of errors can be discussed between the CO plan examiners and region reviewer/ coordinator. Two factors need to be considered:

- 1. Time is critical at this stage of review.
- 2. Judgment must be used in determining if detailed type changes of small significance need to be discussed.

Drafting work to repair plans will, in general, be done by the consultant/region. The designer will be in charge of the work not the CO plan examiner. Arrangements for consultants to do the work will be coordinated through the respective region.

45.7 Post Letting Activities

Minor changes to better fit field conditions will be made by construction staff without contacting the consultant. The consultant should be contacted along with department staff when considering contractor-initiated Cost Reduction Incentive proposals. If a proposed change is significant, or if the solution to a problem is not obvious, the consultant should be contacted as well as various department personnel.

Construction staff should forward a copy of the post construction critique of the plan and proposal to the design consultant after the region design staff has added their comments.

When available, the consultant may review the as-built plans and contract change order file in the region office.

FDM 19-10-50 Revisions of PS&E and Resubmittal of Rejected Proposals	November 15, 2021
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50.1 Revisions of PS&E

50.1.1 Plan Review

Plans will be reviewed in BPD using the checklist found in <u>FDM 19-40-1</u>. BPD plan examiners will coordinate changes with region staff who will submit revised plans or individual sheets.

50.1.2 Addenda

The region will make any plan changes on CADDS and send the revised plans to BPD as PDF files formatted to be 8 $\frac{1}{2}$ X 11 inches (see <u>FDM 15-5-10</u> and <u>FDM 19-22-1</u>).

50.2 Resubmittal of Rejected Proposals

When a PS&E is submitted for reletting after bids were rejected from an earlier letting, include an updated plan letter in the PS&E submittal. Under the "Conclusion" heading of the plan letter, explain the kind of work in the

contract (e.g., grading, base, structure, etc.) and what has been changed, such as plan details, special provisions and/or specification requirements, prosecution and progress, and makeup of the contract(s).

Bureau of Project Development						
	Quality Review Checklist					
Bureau of Project Development Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)			
Project Services (Project Oversight Unit)	Review plans for conformity with DSR and commitments made during project development. Review items include:	Complete the plan review of the items listed in the review objective as appropriate.	Yes (A)			
	 Typical sections Alignment and geometric standards 					
	- Project scope					
	 Safety and unique features 					
	Review Special Provisions for conformity to DSR and commitments made during the project development. Review items include:	Complete the Special Provisions review of the items listed in the review objective as appropriate	Yes (A)			
	- Prosecution and Progress					
	- Other Contracts					
	- Traffic - Modification to					
	Standards					
	- 90XXX items					
	- Environmental & Hazardous materials					
	- Proprietary Items					
	Review the plans and specifications for buildability	Review the plans and specifications for buildability	Yes (A) (A) Exception – this review and certification is not required for projects on local roads, 100% state- funded traffic operations projects or SHRM /Federal preventive maintenance projects.			
	Review AASHTOWare project estimate for conformity to plans and special provisions. Review items include: - <i>Titles</i> - <i>Funding</i> - <i>Categories</i> - <i>Bid items</i>	Complete the Estimate review of the items listed in the Review Objective column.				

Bureau of Structures	
Quality Review Checklist	

Quality Review Checklist					
Bureau of Structures Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)		
Structure Design Section (Preliminary & Final)	Review structure plans and special provisions. - Review preliminary and/or final structure plans and special provisions - Review or write special provisions for 90xxx items - Ensure that structure designs meet DOT & FHWA standards - Review structures plans to reduce addenda and change orders - Attempt to prevent public liability claims of any kind - Ensure that proprietary items have been approved for specialty structure items	Require that special provisions be submitted with final structure plans for review (consultants) Supply special provisions as appropriate to regions at submittal to the region of the final structure plans (in- house structure designs).	Yes No		

Bureau of Highway Maintenance Quality Review Checklist					
Bureau of Highway Maintenance Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)		
Highway Maintenance and Roadside Management Section	Review wayside and weight scale plans prepared by the regions.	Review plans, special provisions, and ensure that proprietary item approval has been secured as appropriate for unique items.	Yes NOTE: Review of SHRM projects has been delegated to the regions.		
	Review landscape designs.	Review landscape plans, special provisions, and estimate for accuracy and appropriateness on all plans with any landscape component. Ensure that proprietary item approval has been secured for unique items as appropriate.	Yes		

Bureau of Technical Services - Environmental Section Quality Review Checklist

Quality Review Checklist				
Bureau of Equity& Environmental Services Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)	
Environmental Services Section (Contaminated Sites Team) <i>Hazardous Materials</i>	Provide guidance, review and approval.	Ensure that hazardous materials have been addressed during the project development process. Review and comment on plans, special provisions and estimate to ensure proper management of hazardous materials per DOT policy.	Yes Review has been delegated to the Region Environmental Coordinator.	
Environmental Services Section (Natural Resources Team) <i>Wetlands</i> <i>Endangered Resources</i>	Provide guidance, review and approval. Ensure that environmental commitments stated in the Design Study Report are addressed.	Ensure that wetland and natural resource mitigation has been addressed during the project development process. Provide guidance and assistance in the development of wetland and natural resources mitigation plans. Review and comment on plans, specifications and engineer estimates pertaining to wetland mitigation resulting from DOT projects.	Yes Review has been delegated to the Region Environmental Coordinator.	
Environmental Services Section (Environmental Review and Analysis Team) Archeology/Historical Air/Noise Erosion Control/Storm Water Management	Provide guidance, review and approval. Ensure that environmental commitments stated in the Design Study Report are addressed.	Review and comment on plans, special provisions and estimates on unique construction activities resulting from Historical/Archeological requirements. Review and comments on air and noise quality issues. Review and comment on plans, special provisions and estimates in the area of erosion control adequacy and storm water management.	Yes Review has been delegated to the Region Environmental Coordinator.	

Bureau of Transit, Local Roads, Railroads & Harbors Quality Review Checklist

Railroads & Harbors Section Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)		
Region Railroad Coordinator	Ensure that contract proposals have the necessary railroad provisions and information.	Review plans, special provisions, and estimates on all matters involving railroads.	Yes Review has been delegated to the Region Railroad Coordinator		
	Necessary information includes:				
	- adding overlooked railroad special provisions				
	 checking insurance requirements 				
	- checking named contract personnel				
	 checking clearances, flagging rates and railroad force work 				
	 calling attention to any needed coordination between contractor and railroad. 				
	- verify that the 86.13 notice was sent to the railroad.				
	The Railroad Coordinator will review the project status of agreements and Land Rights and coordinate any additional work.				

Bureau of Technical Services - Acquisition & Services Section Quality Review Checklist

	Quality Review		
Bureau of Technical Services Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)
Acquisition and Services Section	Review contracts for parcels not cleared. Track each project to ensure R/W clearance is complete prior to advertisement for bidding.	Review R/W Special Provisions and verify that the Certificate of Right of Way form is certified clear for letting.	No*
			* Form DT1899, (Certificate of Right of Way) is the certification document prior to PS&E submittal.
Region Utilities Coordinator	Ensure that Utility Land Rights have been acquired and the Agreements have been completed. Ensure the Utility Special Provisions are written in accordance with the Agreements	Review Utilities Special Provisions	No ^(A) (A) Form DT1080 (Utilities Status Report) is the certification document prior to PS&E submittal.

Bureau of Traffic Operations Quality Review

	Operations Quality Review				
Bureau of Traffic Operations Reviews or Region Delegate	Review Objective	Perform Prior to PS&E Submittal	Review Certification Required (Y/N)		
Traffic Engineering and Safety Section	Review of signing, marking and work zone plans for compliance to standards (non-Local Program Projects).	Review pavement marking, signing and traffic control plans, special provisions, special details and estimates for accuracy, appropriateness and compliance with the WMUTCD.	Yes		
	Review of signing, marking and work zone plans for compliance to standards (Local Program Projects).	 Local Projects are reviewed by BTO if at least one of the following criteria are met: 1. A State, U.S., Interstate or connecting highway is impacted with the installation of signing, marking or work zone devices. 	Yes Only if BTO review is required.		
		 Local Program Project has a detour on a State, U.S., Interstate or connecting highway. Linear properties the 			
		 Upon request from the Region Traffic Section. 			
	Sign Details for all Local Projects	BTO will insert standard sign plates into all Local Program Projects. The Local Program Project designer may request fabrication details for non-standard permanent signs and work zone fixed message signs, located on the Local Road at: dotbtosigndetails@dot.wi.go	No		
Traffic Systems and Management Section	Provide review services and recommendations to ensure compliance with standards	Review of street lighting plans, special provisions and estimate to ensure compliance with standards. Ensure that proprietary item approval has been secured for unique items as appropriate.	Yes		
		Review traffic signal plans, including controllers, electrical/electronics, ITS related items, special provisions, and estimate to ensure compliance with standards. Ensure that proprietary item approval has been secured for unique items as appropriate.	Yes		
		Test and certify traffic signal controllers prior to installation (after contract letting).	No		

RECOMMENDATION TO GOVERNOR FOR CONTRACT AND BOND APPROVAL

Wisconsin Department of Transportation

DT25 2/2005					Let Proposal Number
Project ID(s)		Organization			Bureau
1100-10-71	1100-10-73	Transportat	ion Sys	tem Development	Project Development
1100-11-91	1100-11-93	Originator Na	ime		Title
		Scott J. Lav	vry, P.E		Chief Proposal Management Engineer
		Contract Amo	ount		WisDOT Confidential Estimate
		\$			\$
Contract With		Contract Typ	e		
		🗖 Let Const	ruction	LFA (State) LFA (Loca	al) 🔲 Razing 🛛 Emergency Construction
of		Traffic Mit	igation	Local Construction	onstruction Eng 🔲 Design Eng 🔲 Survey
		🔲 Bridge De	sign	🔲 Environmental 🛛 🗌 Ra	ailroads Other:
Project Description/Loc	ation				
Zoo Freeway (NB)	Zoo F	reeway (NB)		Zoo Freeway (NB)	Zoo Freeway (NB)
Belton Line Overpase	s to Zoo 🛛 Zoo 🛙	C Capitol Dr.		Intelligent Transportatio	on Intelligent Transportation
USH 45 Interchange	USH	45		Systems (ITS) USH 45	Systems (ITS) USH 45
Milwaukee County	Milwa	ukee County		Milwaukee County	Milwaukee County
Date Let	Date Awarded			Bond Required	Bond Not Required
24 ¹⁰ 227 14 249 26	ransportation in co			ral Highway Administration avement and structures.	

Work Consists of

Deck Replacement and Widening B-40-95, 99, 127, 100, 101,357, 359,334; Asphaltic Milling and Pavement, Base Patching, Sewer Rehabilitation and Lighting, Signing and Safety Improvements.

Consequences - If Not Approved

This project is needed to preserve the pavement and bridges for the future. Failure to construct will cause further deterioration of the freeway surface.

	PROJECT FUNDING PERCENTAGES						
STATE I.D.	STATE FUNDS	FEDERAL FUNDS	LOCAL FUNDS	OTHER			
1100-10-71							
1100-10-73							
1100-11-91							
1100-11-93							
L.							
·							

Contract Authority

I certify that this contract is financially and programmatically consistent with the approved annual operating budget or facilities program. I further certify that this request for Governor's approval meets all applicable state and federal statutes, rules, regulations, and guidelines. This certification is based upon a thorough and complete analysis of this request.

	X	
Forward to Department Secretary	(Contract Authority)	(Date)
	<u>у</u>	
Forward to Office of the Governor	(Department Secretary / Deputy Secretary)	(Date)
	x	
Return to Contract Authority	(Governor - Approval and Authorization)	(Date)

HIGHWAY WORK Wisconsin Departmen 06/2017 s.66.0901(7)	t of Transportation	Proposal Number: 052		
COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Shawano	9180-23-71	WISC 2019179	C Shawano, S Main & E Green Bay Str; Cth B - Zingler & Cth Hhh - Cth Be	STH 022
Shawano	9180-23-72	WISC 2019180	C Shawano, Green Bay Street; Main Street To Cth Hhh	STH 022

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Attach Proposal Guaranty on back of this PAGE.	
Firm Name, Address, City, State, Zip Code	
SAMPLE	
NOT FOR BIDDING PURPOSES	
This contract is exempt from federal oversight.	

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

Do not sign, notarize, or submit this Highway Work Proposal when submitting an electronic bid on the Internet.

Subscribed and sworn to before me this date

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State Wisconsin)

(Print or Type Bidder Name)

(Bidder Signature)

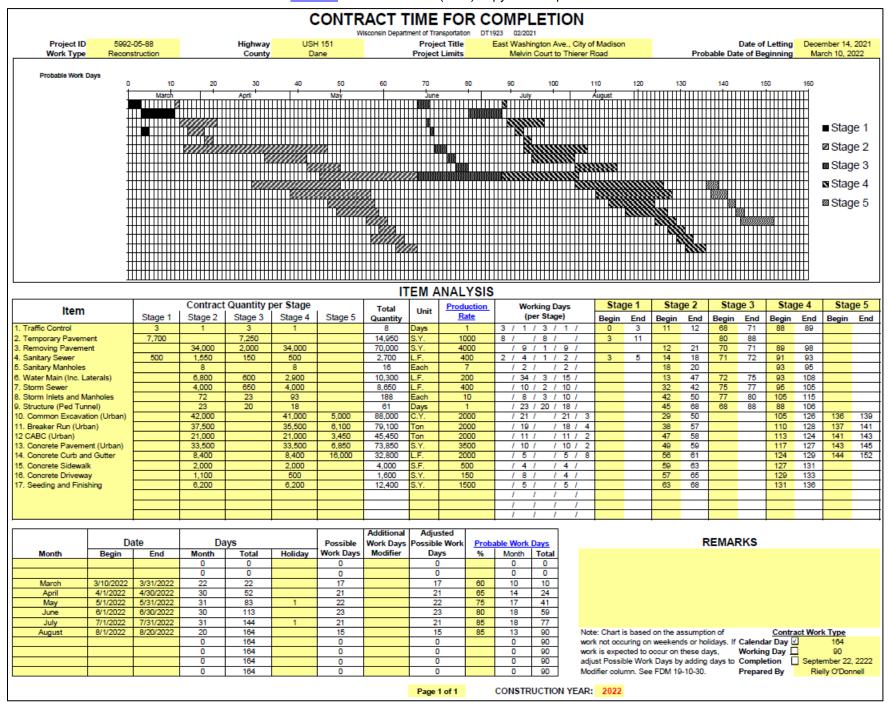
(Date Commission Expires)

Notary Seal

(Bidder Title)

Type of Work: For Department Use Only
Grading, Base, Milling, Asphalt Pavement, Culvert Pipe, Storm Sewer, Curb and Gutter, Concrete Driveway, Sidewalk, Box Culvert
Replacement, Signs, Pavement Markings
Notice of Award Dated Date Guaranty Returned

See DT1923 for an MS Excel (.xlsx) copy of this spreadsheet.



PERCENTAGE FACTORS FOR PROBABLE WORKING DAYS

_%

=

Probable Working Days

Possible Working Days

MONTH	Grading %	Bridge %	Base Course %	P.C.C Pavement %	Asphaltic Pavement %	Painting %
January	58	61				
February	43	65				
March	58	65				
April	58	77	58			
Мау	80	80	80	80	68	64
June	80	80	80	80	81	69
July	85	85	85	85	85	69
August	85	85	85	85	85	77
September	76	80	72	72	70	60
October	77	73	73	72	27	
November	70	70	74	43		
December	58	58	58			

CERTIFICATE OF RIGHT OF WAY

DT1899 Updated 03/25/10 (Replaces RE5005)

Wisconsin Department of Transportation

To: Director, Bureau of Technical Services – Real Estate Hill Farms Bldg/Rm 501 - Madison	From:	Region; Technical Svcs (1) Date:	(2)
-	Aid Project Num	ber I	R/W Project Numl	ber
	4)		(5)	
Highway (6)		1	etting Date	
Title & Limits		(County	
(8)	De site Otet	· · · ·	(9)	
Type of Work (10)	Begin Stat		End Station	
Encroachments still to be removed	plain items, v	who will remove, estin	nated removal	date, etc.: (13)
Encroachments to be left in place by revocable permit None Yes, list parcel #(s), station(s), explain	items, etc.:	(14)		
Hazardous waste	remedy plan, o	estimated removal date,	etc.: (15))
List right of way parcels and interests required for this constr None Yes, provide parcels #(s) and type of in			: (16)	
For WisDOT	Regional Desi	gn Authorization Use Only		
 No new right of way is required; and, we certify federal regulation as appropriate. Yes, new right of way is required. (If checked, 1) 				
(17)	5	Design Representative WisDOT has authorization	approval	Date
	Regional Real Es	state Authorization Use On	y	
If new R/W is required: <u>All</u> parcels are acquired. Parcels not yet acquired. If applicable, list parcel number(s), closing date, award date, and other pertinent details: (18)				
Relocation None Yes, provide parcel #(s), relocation date anticipated, delays, etc.:	e(s),	Structure Removal	vide type(s), rer	noval date(s), by whom:
(19)			(20)	
On behalf of the acquiring agency State, County, City, Village, Town, Other:, and pursuant to 23 CFR 635.309 and other federal regulation as appropriate, we certify the right of way status as: 1, 2, 3.				
(21)	_	Real Estate Representative WisDOT has authorization	approval	Date

Include additional information and attach additional pages, if necessary

RIGHT OF WAY CERTIFICATION LEVEL DEFINITIONS

CERTIFICATION #1 (let and award)

All necessary rights/interests as shown on the right of way plat and/or construction plan have been obtained including legal and physical possession. There may be cases appealed or cases pending in court, but legal possession has been obtained. There may be some improvements remaining on the right of way, but all occupants have vacated the lands and improvements. WisDOT has physical possession and the right to remove, salvage or demolish these improvements and enter on all land.

CERTIFICATION #2 (let and award, but follow up necessary)

Although all necessary rights of way have not been fully acquired, the right to occupy and use all rights of way required for the proper execution of the project has been acquired. (Negotiations must be initiated.) Trial or appeal of some parcels may be pending in court. Full legal possession has not been obtained, but a Temporary Right of Entry Easement has been obtained. The occupants of all lands and improvements have vacated. WisDOT has physical possession and right to remove, salvage or demolish these improvements. The right of entry must be discussed with Bureau of Technical Services - Real Estate for approval prior to use.

CERTIFICATION #3 (follow up and right of way clearance required prior to letting)

The acquisition or right of occupancy and use of a few remaining parcels is not complete, but all occupants of the residences on such parcels have had replacement housing made available to them in accordance with both federal and state directives covering the relocation assistance program. For parcels not clear at the time the PS&E. was submitted, an updated certification must be received by the Bureau of Technical Services - Real Estate prior to the scheduled ad meeting. The certification must show the parcels not yet acquired, anticipated acquisition dates, anticipated Jurisdictional Offer filing dates, etc. The certification must also identify any parcels not vacated and the vacation dates. The region may request authorization in these cases only in very rare and unique circumstances. This exception, however, will never become the rule.

DEFER

Projects that do not meet the above requirements will not be advertised for letting.

W <u>HELP TIP</u>: If using Word 2007 version software and find it necessary to include additional information or attach additional pages, with Word 2007 open, go to '**Insert**' tab on ribbon. Then, click dropdown arrow to right of '**Object**' (in Text group area). Next, choose '**Text from File...**' from dropdown, and browse to file on your computer that you want to insert. Once you locate and click on file from your computer, entire file and all saved content will be immediately inserted.

Alternate method: With Word 2007 open, go to '**Insert**' tab on ribbon. Then, click dropdown arrow to right of '**Object**' (in Text group area). Next, choose '<u>**Object**</u>...' from dropdown, or just click '**Object**' icon. When popup window appears, move to tab '**Create from** <u>File</u>' and click '<u>**Browse**...</u>' button to find file on your computer. Once you locate and click on file from your computer, path will appear in '**File name**:' field. Finally, click '**Okay**' button and file will be transferred into current document.

Detailed instructions on the right of way certification process can be found in the Real Estate Program Manual/Section 3.10 as well as the Facilities Development Manual in FDM 19-10-35. Also see, See FDM 19-1-3 for more on letting process.

Note: At the time of this writing, an additional step is being implemented on a trial basis where an exception report is being required at the time of the PS&E to try and address any issues that may prevent a project from meeting all requirements for advertisement and letting.

CERTIFICATE OF RIGHT OF WAY (DT1899) INSTRUCTIONS

See definitions for right of way certification levels on previous page. Items marked 1 - 17 on Certificate of Right of Way (form DT1899) to be filled out by regional WisDOT Design Unit or consultant. Also see instructions "For WisDOT Regional Design Authorization Use Only."

Item # Step-by-step instructions to complete

- (1) "From" region completing form.
- (2) "Date" date preparing form.
- (3) "Construction Project Number"
- (4) *"Federal Aid Project Number" if applicable.*
- (5) *"R/W Project Number"* right of way project number, if applicable.
- (6) *"Highway"* formal name of highway. Example: S.T.H. 55.
- (7) *"Letting Date"* date when project is scheduled for letting.
- (8) *"Title & Limits"* general location information (use official Title and Limit from FIIPS).
- (9) *"County"* county where majority of work on project will take place.
- (10) *"Type of Work"* briefly summarize action to be taken. Example: grading, curb and gutter, etc.
- (11) *"Begin Station"* station where construction will begin on project.
- (12) *"End Station"* station where construction will end on project.
- (13) "Encroachments still to be removed" check either "None" or "Yes, list parcel #(s), station(s), explain items, who will remove, estimated removal date, etc." provide plat parcel number, station and description of encroachment. Who will remove and when; consult with Design or Maintenance Units if needed.
- (14) "Encroachments to be left in place by revocable permit" check either "None" or "Yes, list parcel #(s), station(s), explain items, etc." provide plat parcel number, station and description of encroachment. Give status of permit. Provide as much detail as practicable. Example: Parcel 8, Station 106+75, village "Welcome" sign; permit granted on 00/00/0000.
- (15) *"Hazardous Waste"* check either *"None"* or *"Yes, list parcel #(s), station(s), explain remedy plan, estimated removal date, etc."* provide plat parcel number and station of waste site. Describe materials found and explain remedy plan, including any estimate removal date. Include point of contact information as part of remedy plan, if applicable.
- (16) "List right of way parcels and interests required for this construction project letting." check either "None" or "Yes, provide parcel #(s) and type of interest, to include construction permits." do not include utility or railroad parcels. Example: Parcels 1,3,5,6 FEE; Parcels 2,4 PLE; Parcels 7,8,9 TLE; Parcel 10 Construction Permit.
- (17) For WisDOT Regional Design Authorization Use Only check either, "No new right of way is required; and, we certify the right of way status as #1, pursuant to 23 CFR 635.309 and other federal regulation as appropriate." no permanent and/or temporary. Enter Regional Design Representative name/date. Then, add to PS&E package. <u>Or</u>, check "Yes, new right of way is required" permanent and/or temporary. Enter Regional Design Representative name/date. Then, add to PS&E package. <u>Or</u>, check "Yes, new right of way is required" permanent and/or temporary. Enter Regional Design Representative name/date. Next, if new R/W is required, send to regional WisDOT/Technical Services Real Estate to complete Items #18 21. Note: Only WisDOT has authorization for approval (consultants are not recognized by FHWA for approval authority).

Item # If new R/W is required, items marked 18 - 21 to be filled out by regional Real Estate representative. *

- (18) For WisDOT Regional Real Estate Authorization Use Only check either "<u>All</u> parcels are acquired" or "Parcels not yet acquired. If applicable, list parcel number(s), closing date, award date, and other pertinent details" – provide additional detail as necessary to explain any circumstances of any parcels not acquired.
- (19) Relocation check either "None" or "Yes, provide parcel #(s), relocation date(s), and anticipated delays,
- etc." provide additional detail as necessary to explain circumstances of any relocations not completed.
 (20) Structure Removal check either "None" or "Yes, provide type(s), removal dates(s), by whom." Example:
- Small shed to be removed by owner on or before 00/00/0000.
 (21) Check appropriate box of "On behalf of acquiring agency..." and, check appropriate level for "we certify"
- (21) Check appropriate box of "On behalf of acquiring agency..." and, check appropriate level for "we certify right of way status..." Enter Regional Real Estate Representative name/date. Note: Only WisDOT has authorization for approval (consultants are not recognized by FHWA for approval authority).

Note: Include additional information and attach other additional pages and documents as may be needed.

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

Date:	February 29, 2012
To:	Consultant Designers of WisDOT Roadway Projects
	WisDOT staff Managing Consultant-led Design Projects
From:	Jerry H. Zogg, P.E.
	Chief Roadway Standards Engineer
Subject:	Civil 3D Specific Design Deliverable Requirements

Wisconsin Department of Transportation will implement Civil 3D specific design project deliverable requirements. These requirements will apply to all roadway projects designed for WisDOT, except for local program projects.

The intent of Civil 3D specific deliverable requirements is to mandate the use of AutoCAD Civil 3D software in the development of WisDOT roadway designs, and to include the delivery requirements of both of the following as part of a finished design project submittal:

- The entire Civil 3D project data set.
- Automated Machine Guidance (AMG) 3D surface models, on appropriate projects.

Detailed language concerning the above deliverable requirements will be shared at a later date.

Implementation planning is currently underway, and our goal is a state-wide implementation of these requirements by mid-year 2014. Our goal is that all project solicitations beginning in mid-year 2014 will include the Civil 3D specific delivery requirements. The timeline of the planning and implementation process will look as follows:

- February 2012 announce intention of C3D Requirements Implementation
- July 2012 share draft FDM language regarding requirements, and other guidance language
- July 2012 Finalize implementation planning and schedule
- September 2012 Conduct regional seminars to discuss implementation activities leading up to midyear -2014 effective date
- Mid-year 2014 Civil 3D specific requirements go into effect on all WisDOT project solicitations, except for local program projects

WisDOT project staff may elect to add Civil 3D specific delivery requirements to individual projects prior to the statewide implementation date. Early implementation of these requirements on an individual project basis will be done sparingly since it creates additional challenges for both WisDOT staff and consultants who aren't presently using Civil 3D. WisDOT project management staff considering early an implementation of these requirements for a project must obtain BPD approval, contact Jerry Zogg (jerry.zogg@dot.wi.gov) for details.

At the current time, WisDOT is not extending the Civil 3D specific design project deliverable requirements to local program projects. However, some local governments are already using Civil 3D, and others are evaluating it. WisDOT encourages local governments to consider the implementation of Civil 3D and wants to provide local governments the opportunity to participate in the Civil 3D implementation activities over the next 2 years. In addition, WisDOT will be gathering information from local governments on their current status with using design software.

Why Is WisDOT Requiring Usage of Civil 3D?

WisDOT is not requiring the use of Civil 3D because of its desire to receive Automated Machine Guidance (AMG) 3D surface models. WisDOT is aware that there are several roadway design software packages which can successfully produce AMG 3D surface models for the contractor's use in earthwork, base, and paving construction.

WisDOT's primary focus for the initial implementation of Civil 3D, over the next 2 years, will be the successful creation AMG 3D surface models. WisDOT wants to take full advantage of both the cost savings and construction quality benefits from the contractor's use of AMG 3D surface models.

During this time, WisDOT will also have a secondary focus on transitioning from AMG 3D surface models to more fully developed Roadway Models. The Roadway Models will include additional information that will initially increase engineering efficiencies in design and construction. Over time, WisDOT will expand the use of the Roadway Models in the other functional areas of operations, maintenance, and planning.

WisDOT is looking to maximize our utilization of Roadway Models in the near term and in the future. To do so, it has become apparent that we need to mandate the use of Civil 3D so we will have the ability to:

- Easily use and modify the design data without the risk of error in intelligent design data transfer between software systems
- Easily extract intelligent information from the design data

During the past several years, WisDOT has monitored design software development and observed a trend of increased individualization of design software packages. Each software has its own workflow, each contains unique design software objects, and each uses a proprietary data format. All these factors combine to make sharing of intelligent design data between design software systems a complex, time consuming, and unreliable task. WisDOT has discussed this trend with software developers, and we've monitored efforts to increase data transferability such as TransXML, but nothing we have seen or heard leads us to believe intelligent design data transfer will get easier. In fact, we expect the opposite will happen. We expect the degree of difficulty and risk of error in intelligent design data transfer between different design software will grow as developers continue to add deeper and more complex functionality to their systems.

How has WisDOT Coordinated with ACEC on Requiring Civil 3D?

In the fall of 2011, WisDOT shared the information above and our corresponding intentions of maximizing utilization of complex roadway models with ACEC membership. ACEC asked whether we could achieve our goals without requiring the use of Civil 3D in the development of our designs. In other words, could WisDOT develop a non-proprietary performance specification that will meet our needs?

WisDOT proposed a testing plan to answer this question. After reviewing WisDOT's draft performance specification requirements, ACEC concurred with WisDOT's perception that the testing plan would not be successful. Correspondingly, a performance specification will not allow WisDOT to maximize the full potential utility of roadway models in the future.

As a result, WisDOT reached consensus with ACEC on WisDOT's need to require the use of Civil 3D.

What is WisDOT Doing to Help Consultants Transition to Civil 3D?

As our consultants prepare for a transition to Civil 3D, WisDOT is doing several things to help.

First, WisDOT makes available all our Civil 3D user training material. This material is captured in video format and is currently made available at: <u>http://www.dot.wisconsin.gov/business/engrserv/trainingcivil3d/index.htm</u>.

We are pleased with the success we've had in training our staff using this video-based method, and as time passes, we will be expanding our video training content to include more advanced subjects. Some of the upcoming additions will include a revamping of our basic Civil 3D content and providing a complete workflow exercise series that teaches plans production workflows for maximizing efficiencies while creating all WisDOT plan sheets in Civil 3D. We are committed to continue developing and distributing our training in video format, and we are committed to continue making this material available to the public.

In addition, WisDOT will continue our longstanding practice of openly sharing our standards and customization for the software we use. For those of you who have been using our Civil 3D 2010 content, in March 2012 we will release an update of our standards package for use in Civil 3D 2012. This content is found at: http://www.dot.wisconsin.gov/business/engrserv/roadway-design-files.htm.

And finally, we are exploring alternatives for starting a statewide Civil 3D Transportation Designer user group. We'd like this user group to meet at a regular frequency, and to be a forum for sharing ideas and best practices in using Civil 3D for transportation engineering solutions. We'll continue to share information regarding this effort as it develops beginning with the seminars in September.

Questions regarding implementation of Civil 3D specific design deliverables and related content in this message should be sent to <u>dotcaesupport@dot.wi.gov</u>.



Facilities Development Manual Chapter 19 Plans, Specifications, and Estimates Section 15 Special Provisions

FDM 19-15-1 Introduction

Wisconsin Department of Transportation

August 17, 2020

The Special Provisions of a contract include special directions or project specific requirements that are not otherwise satisfactorily specified or stated in the Standard Specifications for Highway and Structure Constructions (referred to as the standard specifications hereinafter in this chapter) or plan. Properly written special provisions, if properly used and referred to throughout project construction, ensure a well-constructed project and minimize disputes. Special provisions do not duplicate information already provided in the plan; instead, they complement the plan by defining the types of materials to be used, providing procedures to be followed during construction, and specifying the workmanship expected. They are written using a common format consisting of a series of numbered articles. The format for special provisions is provided below.

In addition to general articles about the specific project and articles for non-standard bid items, the special provisions contain many articles that are common and applicable to projects across the state. The Bureau of Project Development (BPD) maintains these articles, called the Standardized Special Provisions (STSPs). More information about the STSPs is found in <u>FDM 19-15-85</u>. For direction on how to format and write articles for non-standard bid items, refer to <u>FDM 19-15-80</u>.

Create the special provisions using Microsoft Word. Conversions from other word processing software packages are not acceptable. The documents needed to compile the special provisions are kept at the following location:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

This site contains:

- The Highway Work Proposal (DT1502.docx);
- The STSP Log, a listing of the revisions made in the most recent STSP update;
- STSP log archives, a list of past STSP logs;
- An index (Index.xlsx), an Excel spreadsheet listing all STSPs and information on when to use them, from which a designer can choose the appropriate STSPs for a project, filter the listing so that only the appropriate STSPs remain, and then use the list to compile the special provisions;
- The STSP Template (stsp-template.dotm), which contains all of the STSP building blocks;
- The STSP articles PDF, which is a read only document that contains all of the current STSPs;
- The Plan Letter template (planltr.docx);
- The Special Provisions Insert form; and
- The training manual Creating Special Provisions;
- The Insert Guidelines.
- Word document shortcuts

Whenever possible, write the special provision articles in the active voice-imperative mood style, writing direct commands to the contractor (refer to section 101.1 of the standard specifications). Where it is necessary to use passive language to make the responsible party clear, use the word "may" to indicate the contractor's option, the word "shall" to indicate the contractor's responsibility, and "will" to indicate the department's responsibility.

Examples of article headings as well as some sample articles are contained within this FDM chapter. It should be noted that the nature of a particular project determines the applicability of a given article, and these articles may not be appropriate for all projects. A valuable aid in formulating these articles may be obtained by reviewing a set of special provisions from a recent project of a similar nature.

Some articles for specialized project-specific bid items may be obtained from the various DTSD bureaus such as BPD, BHM, BOS, BTO, BTS and OBOEC.

Assemble and number the special provisions sequentially beginning with the general special provisions, such as the articles General, Scope of Work, Prosecution and Progress, Traffic, etc. These provisions do not relate to any particular bid item. Next, insert STSPs, or modifications to the STSPs, arranged in numerical order in accordance to the standard specifications. Place articles for non-standard bid items (SPV.XXXX.XX) in ascending order of bid item numbers at the end of the special provisions. Refer to the following Table of Contents.

Table of Contents

Article	Description	Page
1.*	General	
2.*	Scope of Work	
3.	Pre-Bid Meeting	
4.*	Prosecution and Progress	
5.	Lane Rental Fee Assessment	
6.	Traffic	
7.	Holiday Work Restrictions	
8.	Utilities	
9.	Other Contracts	
	Work by Others	
10.	Relations with Railroads	
11.	Hauling Restrictions	
12.	Information to Bidders (STSPs 107-056 and 107-054 listed first)	
	Environmental Protection and Erosion Control	
	Notice to Contractor items	
	Archaeological Sites	
	Navigable Waterways	
	Other	
13.	Coordination with Businesses and Residents	
14.	Public Convenience and Safety	
15.	Modifications to Standard Specifications; and Standard Special Provisions (STSP) (###.####.S.01-###.####.S.02,03,04,) arranged in numerical order in accordance with the Standard Specifications	
16.	Non-Standard Bid Items; (SPV.####.01 – SPV.####.02, .03, .04, .05), arranged in numerical order	
*NOTE: These three	articles are in the general template, and in EVERY set of special provisions.	
NOTE: Articles 3 and	d 5 through 16 may or may not be included.	

All special provisions for contracts to be let by the department will be developed using this format.

Special Provision Document Formatting

Formatting for the Special Provisions has been preset in the general Special Provisions Template, stsptemplate.dotm. The date heading above the article *General* indicates the last revision date of the template. An STSP number and revision date is also shown at the end of each STSP indicating the last time that particular STSP was revised.

The preset formatting includes:

- Top and bottom margins 0.5", left and right margins 1".
- Tab set every ½ inch.
- Arial font, 10 point.
- Four styles (Heading 1, Normal, STSP, and List Paragraph).
- Left justification for article headings.
- Single line spacing, with 6 pt before and after paragraph spacing.

Process for Creating Special Provisions

1. Refer to the manual *Creating Special Provisions* for detailed instructions on how to prepare special provisions. (Obtain the manual and all documents needed for completing the special provisions at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

- 2. Open the *STSP Index Spreadsheet*, Index.xlsx, and save it under an appropriate file name. Select the STSPs required and enter necessary information in the Information to Enter column for fields. Filter the spreadsheet so that only the checked STSPs are visible. Use this as a reference while creating the special provisions.
- 3. Open the special provisions template, stsp-template.dotm, and Save As to an appropriate file name. A Save As to a file type other than a Macro-Enabled Word Document will cause the template macros to be removed.
- 4. Complete the articles General and Scope of Work.
- 5. Complete the article *Prosecution and Progress* using one of the three tabs (Working Day, Calendar Day, and Completion Date) found in the special provisions general template.
- 6. Refer to the *STSP Index Spreadsheet* printed in step 2 and add STSPs as needed (type in the STSP number, and press F3).
- 7. Complete all fields within the STSPs; also, locate all dropdown boxes, and make appropriate selections. (To locate fields, press F9.). Finished articles should not have shading.
- 8. Add articles for SPV items (see <u>FDM 19-15-80</u>). When writing articles, do not substitute good grammar or clarity of thought for brevity. Also, the specifications must mean the same thing to a person unfamiliar with the work as it does to a person highly skilled in the work described by the specification.
- 9. Check styles and headings, spell-check the document, and update the footer and the Table of Contents.
- 10. Save under an appropriate file name and submit to the BPD on or before the appropriate PS&E submittal date (see <u>FDM 19-1-1</u>) using the e-Submittal process (see <u>FDM 19-10-1</u>).

See <u>FDM 19-40-1</u> for more guidance on the preparation and submittal of special provisions.

FDM 19-15-2 Alternative Contracting

May 17, 2021

2.1 Introduction

Alternative contracting methods are discussed in <u>FDM 11-2</u>. They generally are methods for improving the efficiency of delivering transportation improvement projects under the FHWA's Special Experimental Project 14 Program. The SEP-14 program has provided the State DOTs with a vehicle for evaluating various types of non-traditional contracting on Federal-aid highway contracts. The objective of SEP-14 is to evaluate project specific alternative contracting practices that have the potential to reduce the life cycle cost of projects, while maintaining product quality. Four experimental techniques originally identified for evaluation have been declared operational:

- cost-plus-time bidding (<u>FDM 11-2-1.9</u>)
- lane rental (FDM 11-2-1.5)
- design/build contracting (FDM 11-2-1.3)
- warranty clauses. (FDM 11-2-1.10)

There are other alternative contracting methods that are either in general or limited use by the department. The methods already being used by the department are:

- Interim liquidated damages (FDM 11-2-1.7)
- Incentives/Disincentives (FDM 11-2-1.8)
- Flexible notice-to-proceed dates (FDM 11-2-1.4)

A new alternative contracting method available for use is "enhanced" liquidated damages (<u>FDM 11-2-1.6</u>). A new method that has been used on a very limited basis is "low bid" design/build (<u>FDM 11-2-1.3</u>).

2.2 Cost Plus Time Bidding

The cost plus time bidding method involves time, with an associated cost, in the low bid determination. The method includes several ways to consider time. The basic type is A + B bidding, where the contractor bids both items (A) and contract time (B). Another type is A + Lane Rental, where the time component is the number and duration of lane closures. A third type of cost plus time bidding is Accelerate Bridge Construction, where the

maximum time specified in the contract is so restrictive that pre-fabricated bridge elements and systems, stateof-the-art equipment, material technologies, and innovative contracting methods would be needed.

Sample special provisions for cost-plus-time bidding are included in <u>Attachment 2.1, 2.2, 2.3</u>, and <u>2.4</u>.

2.3 Lane Rental

Under the lane rental concept, a rental fee assessment is sometimes included in the contract. The lane rental fee assessment is based on a portion of the estimated cost of delay or inconvenience to the road user during the rental period. The fee is assessed for the time that the contractor occupies or obstructs part of the roadway and is deducted from the progress payments.

Sample special provisions for lane rentals are included in <u>Attachment 2.5</u> and <u>2.6</u>.

2.4 Design/Build Contracting

With design-build contracting, the contracting agency identifies the end result parameters and establishes the design criteria. The prospective bidders then develop design proposals that optimize their construction abilities. Since Wisconsin legislation does not allow for the use of Design/Build (D/B) contracts at this time, no sample special provisions are included.

2.5 Interim Liquidated Damages

Interim liquidated damages are used to motivate the contractor to complete a portion of the construction early in order to discontinue the use of a detour and reopen a section of highway to through traffic. Special provisions for interim liquidated damages are presently available as STSPs.

- Interim Liquidated Damages Working Day
- Interim Liquidated Damages Calendar Days
- Interim Liquidated Damages Fixed Date
- Interim Liquidated Damages Restrict Weather Delays Calendar Days
- Interim Liquidated Damages Restrict Weather Delays Fixed Date
- Interim Liquidated Damages Multiple Projects

2.6 Enhanced Liquidated Damages

On some projects, it may be appropriate to amend the definition of final liquidated damages (from <u>standard spec</u> <u>108.11</u>) to recover not only the cost of engineering and supervision but also a portion of the calculated road user costs (see <u>FDM 11-50-32</u>). The department has chosen to call the amended definition "enhanced" liquidated damages.

A sample special provision for enhanced liquidated damages bidding is included in Attachment 2.7.

2.7 Incentives/Disincentives

An incentive/disincentive provision is part of a contract that compensates the contractor a certain amount of money for completing critical work on or ahead of schedule and assesses a deduction for work not completed on time. This provision is intended for critical projects where traffic inconvenience and delay are to be kept to a minimum and access is to be restored as soon as possible. A special provision for the use of interim incentives/disincentives is presently available as an STSP.

- Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S

The incentive/disincentive special provision currently being used is labeled "Incentive/Disincentive for Interim Completion of Work". The special provision has been used for final completion of the project as well for completion of interim stages. To resolve this inconsistency, when the project needs to be substantially complete before the road user impacts are gone, the designer is encouraged to use a new special provision called Incentive/Disincentive for Final Completion of Work.

A sample special provision for incentive/disincentive for final completion of work is included in <u>Attachment 2.8</u>.

2.8 Flexible Notice-to-Proceed

One type of alternative contracting is the use of Flexible Notice-to-Proceed specifications. It is useful when there are not any constraints on when the project needs to begin or end and there is more than enough time available in the construction season than is needed for the project. However, once started, the project would be required to be completed in a certain amount of time. In those cases, it is possible to allow the contractor to pick the start date, within certain parameters such as the soonest and the latest it can start.

Sample special provisions for flexible notice-to-proceed bidding are included in Attachment 2.9.

2.9 "Low Bid" Design/Build

The department has used a "low bid" design/build concept one time on a bridge project (to rehabilitate the Wisconsin Avenue Lift Bridge and reconstruct the Juneau Avenue Bascule Bridge in the City of Milwaukee). Federal law provides that federally funded design-build projects may be procured using "any process permitted by applicable State and local law." The department is normally awards construction contracts through a competitive bidding process but is not subject to any requirement to use a particular method to procure engineering services contracts. It is therefore possible to bundle design and construction services into a single contract awarded to the "lowest competent and responsible bidder."

Since "low bid" design/build contracts are expected to be used rarely, contact the Bureau of Project Development - Project Services Section for assistance with project specifications.

LIST OF ATTACHMENTS

Attachment 2.1	Cost Plus Time (A + B) Bidding
Attachment 2.2	Cost Plus Time (A + B1 + B2 + B3) Bidding
Attachment 2.3	Cost Plus Time (A + Lane Rental) Bidding
Attachment 2.4	Cost Plus Time (Accelerated Bridge Construction) Bidding
Attachment 2.5	Lane Rental Fee Assessment (Example for simple night work)
Attachment 2.6	Lane Rental Fee Assessment (Example for multiple closure situations)
Attachment 2.7	Enhanced Liquidated Damages
Attachment 2.8	Incentives/Disincentives for Interim Completion of Work
Attachment 2.9	Flexible Notice-to-Proceed

FDM 19-15-3 Guarantees, Warranties, Establishment Periods, and Proving Periods August 17, 2020

The department may require the contractor in the special provisions to obtain and assign to the department, manufacturer's guarantees or warranties that are given as a customary trade practice for material or products purchased for use on the contract. Generally, a warranty, establishment period, or proving period is a contractual provision guaranteeing that a particular good or service provided by a contractor will meet the owner's expectations for a particular period of time.

The intent of the guarantee, warranty, establishment period, or proving period requirements as specified in 23 CFR 635.413 of the Federal Aid Policy Guide is described below.

Equipment must perform as intended by the manufacturer for the period guaranteed by the manufacturer when installed in accordance with the recommendations of the manufacturer. Failure to perform as indicated above requires that the manufacturer replace in kind or repair, at his option, the equipment in question. User labor costs resulting from replacement of the equipment are not a burden to be borne by either the manufacturer or the contractor. User labor costs due to normal maintenance or emergency, or costs not normally provided as trade practice must not be borne by either the manufacturer or the contractor.

Installations involving electrical or mechanical components often require a period of operation before an acceptable level of service can be established.

The contractor must provide a level of workmanship that will assure the state of an operational system meeting an acceptable level of service. The stated operational period will allow for adjustment, repair or replacement of equipment or materials not covered by manufacturers' guarantees and the correction of malfunctions attributable to installation deficiencies.

When considering using a warranty, establishment period, or proving period in a project, consider the following:

- It is separate and apart from the performance and payment bond.
- Any warranty, establishment period, or proving period that will expire within the one year period of the performance bond is duplicative and likely unnecessary.
- It may become an additional expense for the contractor and passed along to the owner.
- Standard spec 107.14 states that the contractor is responsible for the work until the work complies with the contract.
- According to standard spec 107.16, the contractor already assumes liability for latent defects, fraud, and gross mistakes.

- Adding a warranty, establishment period, or proving period to a project will complicate and delay the finals process.
- A warranty, establishment period, or proving period might be useful when the acceptability of a contractual item may not be known within one year following completion of the prime contract, such as in cases of trees and shrubs.

FDM 19-15-5 General

October 22, 2012

The first article in the special provisions, the General article, identifies the project(s) and the specifications that will govern the performance of the work required. A sample suitable for all contracts including federal-aid bid, force account agreements, razing and removing contracts, as well as non-federal-aid bid contracts is shown below. For let contracts, the project description in this article should match the project's description in FIIPS. This General article is included in the special provisions template, stsp-template.dotm.

5.1 Sample Special Provision

General.

Perform the work under this construction contract for Project 1030-10-73, I-43 North-South Freeway from the Mitchell Interchange to National Avenue, and Project 1228-11-60, I-43 North-South Freeway from North Avenue to Lexington Boulevard; both projects located in Milwaukee County, Wisconsin, as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2010 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20090901)

FDM 19-15-10 Scope of Work

October 22, 2012

Scope of Work is typically the second article in the Special Provisions and is used to identify the major item(s) of the contract. Examples of major items that may be appropriate for a particular contract are grading, subbase, base, type of surfacing, structures, painting, pavement marking, signing, lighting, and landscaping. The Scope of Work article is included in the special provisions template, stsp-template.dotm.

10.1 Sample Special Provision

Scope of Work.

The work under this contract shall consist of grading, base, concrete pavement, signing, pavement marking, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

FDM 19-15-11 Consideration of Proposals

Use the Consideration of Proposals article in the special provisions when it is necessary to inform contractors that the department is taking bids for the construction of a project(s) under alternate proposals. The article also identifies the criteria upon which the department will base award of the contract.

11.1 Sample Special Provisions

Two special bidding situations frequently require the use of this provision. The first situation occurs when two proposals are being offered to reflect alternate materials of construction; for example, concrete pavement is specified for shoulders in one proposal, while asphaltic pavement for shoulders is specified in the alternate proposal. Insert the following provision into each proposal under this condition (use STSP 103-005).

Consideration of Proposals.

Replace subsection 103.2(1) of the standard specifications with the following:

The department is taking separate bids for the construction of this project under an alternate proposal, identified as Project 1000-00-70.

Februarv 25. 2011

The award of contract, if awarded, will be to the lowest responsible bidder among all bidders for either proposal, whose proposal complies with all requirements necessary to render it formal as determined in accordance to the provisions of subsection 103.1 of the standard specifications.

The second bidding situation occurs when the department is using three alternate proposals to solicit bids; the first bid for Project A, the second for Project B, and a third bid for Projects A and B combined. Insert the following provision into each proposal in this situation (use STSP 103-010).

Consideration of Proposals.

Replace subsection 103.2(1) of the standard specifications with the following:

The department is taking separate bids for the construction of Project <u>1020-00-70</u> and Project <u>1020-00-71</u> and a single bid for the combination of these projects under Projects <u>51020-00-70</u> and <u>51020-00-71</u>.

The award of contract, if awarded, will be to the lowest responsible bidder or bidders whose proposal or proposals complies or comply with all the requirements necessary to render it formal as determined in accordance to the provisions of subsection 103.1 of the standard specifications.

If the second case is used requiring three alternate proposals for Project A, Project B and Projects A and B combined, also insert the special provision titled Proposal Guaranty (STSP 102-005) in the special provisions (refer to <u>FDM 19-15-12</u>).

FDM 19-15-12 Proposal Guaranty

The Proposal Guaranty is the security that the bidder furnishes with the bid to guarantee that the bidder will enter into the contract if the bid is accepted. The proposal guaranty amount is specified on the front cover of the proposal, also known as the Highway Work Proposal, Form DT1502.

Use the Proposal Guaranty article in the special provisions in combination with the article Consideration of Bids as described under the second bidding situation of <u>FDM 19-15-11</u>. The contractor can bid on the individual proposals and the combined proposal by submitting a single proposal guaranty. Use STSP 102-005

12.1 Sample Special Provision

Proposal Guaranty.

A single proposal guaranty of \$40,000.00 submitted with a bid proposal for Project 1020-00-70, Project 1020-00-71 or Projects 51020-00-70 and 51020-00-71 combined will be construed as applicable to all proposals submitted by the bidder for the work under this project, and no additional guaranty will be required for the other proposals submitted.

FDM 19-15-14 Coordination and Prosecution and Progress

August 17, 2020

February 25, 2011

Closely coordinate the content of the Prosecution and Progress and Traffic articles with specific project needs. For example:

1. Prosecution and Progress article: Complete this special provision using the guidance in <u>FDM 19-15-15</u>.

The use of Interim Liquidated Damages and Interim Liquidated Damages - Multiple Project Contracts is described under <u>FDM 11-2-1.7</u> and <u>FDM 19-15-2.5</u>. When interim liquidated damages are included in a contract, specify their use in the Prosecution and Progress article.

Consider the use of bid item Incentive/Disincentive for Interim Completion of work, Item 108.3100.S in some contracts as described under <u>FDM 19-15-2.7</u>.

- 2. Traffic Complete this special provision using the guidance in <u>FDM 19-15-20</u>.
- 3. Contract Time for Completion Compute and establish the contract time using Form DT1923 and the guidance provided in <u>FDM 19-10-30</u>.

14.1 Factors to Consider

Consider the following factors when preparing the Prosecution and Progress article, the Traffic article and the Contract Time for Completion Chart.

14.1.1 Letting Date

The time of the year that the contract is let may determine if all contract work can be completed in that calendar

year, or if it will have to be suspended to the next construction season. It may also determine if work can begin in the calendar year it is let, or if all work will be deferred to the next construction season.

14.1.2 Type of Work

The type of work including grading, base, structure, concrete pavement, asphaltic pavement, and landscaping have controls specified in the standard specifications. Some examples are:

- <u>Grading</u>: Embankments shall not be constructed using frozen material or under freezing conditions.
- <u>Structures:</u> All forms, reinforcement, base and subgrade must be free of ice, snow and frost; if the atmospheric temperature is below 40 degrees F, the contractor shall take extra precautions. Furthermore, the contractor shall not pour concrete for bridge decks and superstructure elements if it is predicted that temperatures will fall below 32 degrees F within 24 hours; the contractor shall protect the underside of the deck with housing and heat if the national weather service forecasts temperatures to fall below 20 degrees F. Specified equivalent curing times are affected by cold temperatures.
- <u>Concrete Pavement:</u> Concrete pavement shall not be constructed on frozen subgrades or during freezing conditions. Specified equivalent curing times are affected by cold temperatures.
- <u>Asphaltic Pavement:</u> Permission from the department is needed for placing asphaltic mixtures between October 15 and May 1. The contractor shall not place asphaltic mixtures over frozen subgrade or base, or where the roadbed is temporarily unstable due to frost heaving.
- <u>Landscaping</u>: There are specified dates when certain plants are to be planted.

These are only a few of the examples contained in the standard specifications. The designer should review the items in the contract and check for specific controls or dates in the standard specifications when writing the Prosecution and Progress and Traffic articles and when completing the Contract Time for Completion Chart.

14.1.3 Local Concerns

Consider the effect that disrupting traffic has on businesses, schools, annual celebrations, tourism, and special events, and if:

- 1. Traffic should be maintained through the construction site.
- 2. Interim liquidated damages or incentive/disincentive provisions are needed in the contract.
- 3. Contract time should be shortened using an accelerated construction schedule.
- 4. Construction should be scheduled during a time frame that does not conflict with local activities.

14.1.4 Accurate Contract Time Analysis

Carefully analyze the contract time and ensure that it is neither too short nor too long. Allowing the contractor excessive time to finish a contract may result in periods of construction inactivity. The public is very critical about such periods while they are being inconvenienced. Conversely, if too little contract time is provided, the contractors may need to increase bid prices if they need to hire more employees or have their crews work overtime to complete the work to request contract change orders or contract time extensions.

When including the bid item Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S in a contract, accurate contract time analysis is critical due to large sums of money being paid for early completion or assessed for late completion and the determination of critical interim completion dates.

14.1.5 Construction Staging

Staging construction at specified times may avoid conflict with rush hour traffic volumes, holiday traffic, or local events. An example of construction staging is when portions of a project that will not affect traffic are constructed initially and the final portions or connections are completed during periods of low traffic volumes.

Another example of specified construction staging is the case of dual roadway reconstruction, where work is restricted to one roadway while counter-directional traffic is carried on the other roadway. When applying weekend and holiday work restrictions to such contracts, do not restrict the contractor from performing construction operations at sites that do not interfere with traffic. Do not, however, allow construction vehicles to travel on the lanes open to traffic.

When construction staging is used, the department should specify only the restrictions the scheduling of construction operations is the contractor's responsibility.

14.1.6 Other Contracts

Coordinate a project's construction activities with adjoining contracts on the same section of highway and with other contracts in the area. Contact other regions to find out what projects they will have under construction in

the area and determining how these other projects will affect the prosecution and progress, traffic or contract time of the contract in question.

14.1.7 Temporary Bypasses and Structures

During the construction of local bridges or other short projects traffic may be maintained through the project using a temporary bypass and/or temporary structure. When this occurs, it is important to include time for the construction and removal of the temporary bypass and/or structure in the contract time analysis.

14.1.8 Environmental Restrictions

Environmental restrictions may affect the time frame during which construction activities may be prosecuted; for example, there may be restricted periods of time due to fish spawning, or nesting of migratory birds. These restrictions affect how the contractor prosecutes the work and should be included in the Prosecution and Progress article.

FDM 19-15-15 Prosecution and Progress

November 15, 2021

The Prosecution and Progress article may be the most important article in the special provisions; it expands on the requirements of section 108 of the standard specifications and may include the following project information or requirements:

- 1. <u>Begin work order</u>. Use the following statement on all contracts: Begin work within ten calendar days after the engineer issues a written notice to proceed.
- 2. <u>Interim liquidated damages</u>. Assessment of interim liquidated damages must be consistent with the type of contract. For example, in a working day contract, interim liquidated damages can only be assessed by the working day. Interim liquidated damages can be assessed by fixed dates or calendar days in completion date or calendar day contracts.
- 3. Schedule of operations that:
 - Conforms to traffic requirements,
 - Conforms to environmental requirements such as migratory bird nesting or in-stream work restrictions due to fish spawning,
 - Meets critical completion requirements, and
 - Maintains access(es), where required.
- 4. Time frame during construction year during which the contractor proposes to construct the project.
- 5. Suspension and resumption of construction operations.

Do not attempt to specify scheduling of the contractor's operations; it is the contractors' responsibility to schedule their own work, and there are usually several ways to arrive at a desired end point. Also, specific results can be specified, such as when a highway is open and closed to through traffic, which business accesses must be maintained at all times, and the traffic staging to ensure that traffic flow is safe through a construction area, but do not specify how the contractor should attain these results. It is the contractor's responsibility to choose when and how to perform construction operations to meet these requirements. For staged construction, instead of describing the stages in the Prosecution and Progress article, use detailed plan sheets showing staged construction limits and how to safely handle traffic. These plan sheets should not represent the designer's idea of the most efficient way to construct the project; again, this is the responsibility of the contractor.

The special provisions template, stsp-template.dotm, contains three special tabs which are located at the top of the screen – one for each of the three commonly used contracts: Working Day, Calendar Day, and Completion Date. Choose the appropriate tab for the project, and use the buttons found within the selected tab to provide the framework of the Prosecution and Progress article for the project.

The diagrams in <u>Attachment 15.1</u> illustrate the possible provisions that may be included in each of the three contract types. Additional guidance about using a particular Prosecution and Progress provision can be found in that provision's technical notes in the STSP Index Spreadsheet, Index.xlsx, located at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

15.1 Other Considerations

15.1.1 Contract Time Frame

Use the contract time frame provision on contracts that have a short duration such as 3 months or less. Examples of shorter duration contracts include constructing small structures or resurfacing. This provision

allows contractors flexibility in scheduling work throughout the construction season and enables them to bid on more contracts knowing that they will be able to construct them at various times during the construction season. This should provide a larger number of bidders and more bidder competition for the contracts in later lettings.

Use time frame provisions only with working day or calendar day contracts. To use this STSP, select the TIMEFRAME button, which is found under all three contract-type tabs in the general template used to write special provisions, stsp-template.dotm, located at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

15.1.1.1 Sample Special Provision

Provide the time frame for construction of the project within the 2021 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

15.1.2 Suspension of Operations

After analyzing the contract time for working day and calendar day contracts, if it appears necessary to suspend operations, use the Fall Suspension button located under the appropriate contract type tab.

Completion date contracts should not use work suspension language because the department cannot dictate to the contractor when to stop or start work during the winter months. If shutdown is required due to specific circumstances, contact the Special Provisions Engineer for guidance on appropriate language.

15.1.2.1 Sample Special Provision (Working Day or Calendar Day contracts)

The schedule of operations as required under subsection 108.9.2 of the standard specifications shall provide for placing HMA pavement, and all pavement markings from Station 100+00 to Station 786+45.

When, in the fall of 2020, after completion of the grading and preparation of the subgrade, and weather conditions or seasonal restrictions preclude the satisfactory performance of further work under this contract, the engineer will, in writing, suspend operations until the spring of 2021. Construction operations shall be resumed in the spring of 2021 within ten days after the date on which a written order to do so has been issued by the engineer.

15.1.2.2 Sample Special Provision (Completion Date contracts)

Winter shutdown will commence with the completion of Stage 2 in the Fall of 2022. Do not resume work until April 1, 2023 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2023. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

LIST OF ATTACHMENTS

Attachment 15.1 Choosing the Appropriate Prosecution & Progress STSP

FDM 19-15-20 Traffic

August 17, 2020

The Traffic article in the special provisions details project specific treatment of public traffic and access rights. In this article, describe the status of public usage of the main line (open, closed, or restricted use) and of all connecting streets or intersecting roads affect traffic during the life of the contract.

Use the phrases Road Closed To Traffic, Road Closed To Through Traffic, and Road Open To All Traffic, as used in subsection 104.6 of the standard specifications, when writing this provision. Do not duplicate the requirements of <u>standard pec 104.6.1</u>.

Coordinate the development of the traffic article with the following project specific requirements.

- 1. Incentive/Disincentive bid item to complete construction in a shorter time span (FDM 19-15-2.7)
- 2. Interim liquidated damages to complete a strategic segment early (FDM 19-15-2.2).
- 3. Bidding work zone traffic control items (FDM 11-50 Attachment 20.1).

- 4. Extraordinary law enforcement in the construction zones (FDM 11-50 Attachment 40.1).
- 5. Holiday and weekend restrictions (FDM 19-15-40).
- 6. Detours (FDM 11-50-15), temporary roads and use of alternate routes.
- 7. Lanes and roadway restrictions (FDM 11-50-15).
- 8. Timing of construction to avoid conflict.

NOTE: When preparing the special provisions, place timing requirements of traffic that affect how a contractor will schedule the work and interim liquidated damages in the Prosecution and Progress article.

Also take into consideration requests made by OPA, adjoining regions that may have contiguous projects, and regional section needs (project development, highway operations, and traffic). Include locations where the contractor must maintain access at all times, such as to hospitals, fire stations, shopping centers, and multi-family housing.

Also note all roadways, which are open to traffic, that the contractor shall not use during construction operations.

Sufficiently detail this article so that along with plan details and other articles in the special provisions it adequately implements the traffic control requirements as established in the design study report and refined during final design activities.

20.1 Sample Special Provision

Traffic.

Maintain through traffic at all times on USH 10 and on CTH E south of USH 10. Close CTH E north of USH 10 and detour CTH E as shown in the plans. Prior to closing CTH E north of USH 10 implement the detour route as shown on the plans. Maintain local access on CTH E north of USH 10 at all times from the north or as directed by the engineer.

Maintain emergency access to the project area at all times.

Maintain two 12-foot travel lanes on USH 10 using the details provided in the plan or as directed by the engineer. USH 10 may be reduced to one lane using flagging operations during working hours as allowed by the engineer.

Do not park or store equipment, vehicles, or construction materials within 30 feet of the edge of the USH 10 traffic lanes during non-working hours.

Keep all private entrances and field entrances accessible at all times, unless written permission is obtained from the property owner 48 hours in advance of closing the access.

FDM 19-15-23 Holiday and Weekend Work Restrictions

November 15, 2021

In the interest of traffic safety, the department typically restricts or suspends work during holidays and weekends on rural highways, particularly on those that attract relatively heavy tourist or weekend traffic. Include an article(s) in the special provisions, when appropriate, to describe all applicable Holiday, Special Events, and/or Weekend Work Restrictions. Include work restrictions in a contract after considering the day of the week on which a holiday occurs, and the volume and character of traffic expected on the highway. Also consider the scheduling of the work and the extent to which it may impede the flow of traffic.

Review the directional distribution of traffic when considering work restrictions on divided highways. It may be possible to restrict the work on one roadway and perform work on the other roadway. Coordinate closely with the Traffic Section, when it is necessary to reduce the number of lanes available to traffic during construction operations.

When assessing the need and extent of work restrictions, consider:

- 1. Coordination with the OPA.
- 2. Coordination between regions.
- 3. Coordination between regional sections (Design, Traffic, Construction, and Maintenance).
- 4. Alternate routes available.
- 5. Timing of construction to avoid conflict.

Restrictions are not needed on contracts where the work is on relocation or where the highway under

construction is closed to through traffic, except when hauling of materials to the work site involves travel across or along a highway meeting the requirements for work restrictions.

23.1 Independence Day

When Independence Day occurs on Friday, Saturday, Sunday or Monday, include the following restrictions on all highways carrying heavy tourist or weekend traffic.

Day of the Week on which July 4 th Occurs	Restricted Periods
Friday	Noon Thursday to 6:00 AM Monday
Saturday	Noon Friday to 6:00 AM Monday
Sunday	Noon Friday to 6:00 AM Tuesday
Monday	Noon Friday to 6:00 AM Tuesday

When Independence Day occurs on Tuesday, Wednesday or Thursday include work restrictions on all major highways such as the interstate system. These restrictions may be for the entire week or for each weekend bordering the holiday. Choose a restriction for a particular project based on the region's analysis of the traffic counts for that project. A full week work restriction shall begin at noon Friday of the first weekend and continue to 6:00 AM Monday of the second weekend. The weekend work restriction shall be from noon Friday to 6:00 AM Monday for each weekend.

23.2 Memorial and Labor Days

Include holiday work restrictions for Memorial and Labor Day weekends from noon Friday to 6:00 AM Tuesday on all highways carrying heavy tourist or weekend traffic.

23.3 Deer Hunting Season

Include work restrictions on selected highways for the opening weekend of deer hunting season from noon Friday to 6:00 AM Monday. Work restrictions may be required on selected highways for the closing weekend of deer season from noon Saturday to 6:00 AM Monday.

23.4 Non-Holiday Weekends

Include work restrictions on major highways, such as the interstate system, from noon Friday to 6:00 AM Monday during heavy traffic periods.

23.5 Other Monday Holidays

No special work restrictions are required on other Monday holidays such as Martin Luther King Jr. Day, Presidents Day, Columbus Day and Veterans Day.

23.6 Thanksgiving

Use work restrictions when traffic conditions warrant their use.

23.7 Christmas and New Years

Work restrictions may be used under special circumstances. Normally there are few construction operations in progress during this time of year.

23.8 Easter

Use work restrictions when traffic conditions warrant their use.

23.9 Special Events

There may be additional restrictions necessary to accommodate local events that could impact traffic. Examples are sporting events, community festivals, music festivals, or ride events.

23.10 Sample Special Provision

Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying USH 151 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 27, 2022 to 6:00 AM Tuesday May 31, 2022, for Memorial Day;

- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022, for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022, for Labor Day.

stp-107-005 (20210113)

FDM 19-15-25 Utilities

May 17, 2021

The Utilities article in the special provisions provides contractors with information about utility facilities within the project area and potential utility conflicts that may be helpful when they are preparing their bids, and planning and scheduling construction operations. The article should alert contractors to any utility coordination that may be required during construction and any delays that may be caused by a utility during the project's prosecution.

Utilities articles are reviewed by the Utility Coordination Unit as part of their project review and approval of the Utility Status Report. If the review takes place after the PS&E submittal, updates based on their review should be eSubmitted as a special provision insert.

The Utilities article also identifies the status of the project with respect to Transportation Administrative Rule TRANS 220. Include in the first paragraph of this special provision one of the following statements as applicable to the specific PS&E package.

STSP 107-065:

This (These) contract(s) does (do) come under the provisions of Administrative Rule TRANS 220.

– OR –

STSP 107-066:

This (These) contract(s) does (do) not come under the provisions of Administrative Rule TRANS 220.

Starting with the second paragraph, separately address each utility company that has facilities within the project's limits and describe which utility facilities require alteration or relocation. Include the following information for each utility present:

- Name of utility company (in bold).
- Type of facility owned by the utility; for example, 2-inch gas line, overhead power line, or buried telephone cable.
- Location of conflict (station and number of feet left or right).
- Corrective action that the utility will take; for example, lower the line, or relocate the line 10 feet right.
- Anticipated timing of utility operations; for example, prior to the start of construction, before June 15, 2011, or during construction.

Include all utility work scheduled for completion either before or during construction in this article, as well as utility work that is dependent upon the contractor's operations. If there are utility facilities in the project area, but no adjustments are required, provide a brief statement stating this and list the utility companies that have facilities within the project's limits. If there are no known utility facilities within the project area, provide a brief sentence stating this.

Do not specify that the highway contractor performs work without adequately compensating the highway contractor for performing such work. For example, if specifying that a highway contractor performs a utility line opening or adjusts water valves as part of the contract work, ensure that the appropriate bid items are added to the estimate and plan. Also, when referring to bid items within the Utilities article, ensure that the bid items are included in the proposal's schedule of items.

For more information on writing a Utilities article for the special provisions, and for additional sample articles, refer to Chapter 14 of the *WisDOT Guide to Utility Coordination*.

25.1 Sample Special Provisions

Utilities.

This contract does come under the provisions of Administrative Rule TRANS 220.

Wisconsin Gas Company (gas) will lower their 6-inch main from approximately Station 10+39 to Station 10+98 and a 2-inch main that crosses Freistadt Road at Station 20+42. Wisconsin Gas Company will complete this work prior to the start of construction operations under this contract.

AT&T (phone) will be relocating and lowering a portion of their underground telephone conduit and lowering a telephone pedestal in the slope easement at Station 40+49 left. AT&T will complete this work prior to the start of construction operations under this contract.

Sanitary District No. 4 (sanitary) has manholes that must be adjusted to match the new pavement. Sanitary District No. 4 will adjust them concurrently with construction operations under this contract.

- OR, if no adjustments will be needed to existing utility facilities:

Utilities

This contract does not come under the provisions of Administrative Rule TRANS 220.

The following utility companies have facilities within the project area; however, no adjustments are anticipated:

Madison Gas & Electric Company

GTE North, Inc.

TCI Cablevision

- OR, if not utilities are located within the project area:

Utilities.

This contract does not come under the provisions of Administrative Rule TRANS 220.

There are no known utility facilities within the project area.

FDM 19-15-26 Other Contracts and Work by Others

The Other Contracts special provision informs the contractor of other WisDOT or governmental contracts that may affect project operations.

Sample Special Provisions

Other Contracts.

The department plans to contract for the asphaltic concrete pavement on the adjacent project to the south, which has work that will be in progress concurrently with work under this contract.

Other Contracts.

The department plans to contract for the grading, base, and concrete pavement on this section of highway, which has work that will be in progress concurrently with the work under this contract.

Other Contracts.

Marinette County will be reconstructing CTH T from USH 41 to STH 64 during construction operations under this project. Reconstruction of CTH T will include storm sewer and curb and gutter installation and pavement replacement. The county's project will begin when the detour along USH 41 and CTH T is removed and when construction along CTH T during Stage 2 occurs.

FDM 19-15-35 Railroad Special Provisions

Insert the articles Railroad Insurance and Coordination (STSP 107-026) and Railroad Requirements and Coordination (STSP 107-034) into the special provisions when it is necessary for the contractor to furnish Railroad Protective Liability Insurance (RRPL) as part of the contract. Refer to <u>FDM 17-50-5</u> for railroad insurance requirements.

These two special provision articles provide the following information:

- The requirement for RRPL,
- Work that will be performed by the railroad,
- Train operations,
- The railroad representative to be contacted for information, and

October 3, 2016

August 17, 2020

- When using STSP 107-034, who will pay the cost of flagging services.

Refer to the flow chart in <u>Attachment 35.1</u> as a guide from which to select which railroad special provision(s) to use. The technical notes in each railroad STSP provide additional guidance.

In general, use STSP 107-026 for minor work on railroad right of way when flagging is incidental, and the contractor will not be reimbursed. Minor work may include the following activities:

- Approach paving at grade crossings
- Boring conduits under track
- Limited maintenance on overpass structures such as:
 - Full depth deck repairs;
 - Expansion joint replacement at spans over track; and
 - Bearing replacement at spans over track.

Use STSP 107-026 where the project work on railroad right-of-way is relatively minor and the total amount of flagging is not expected to exceed around 10–15 days. Regional railroad coordinators should confer with staff from the BTLRRH if there is a question about whether an activity should be considered major or minor.

In general, use STSP 107-034 for major work on railroad right-of-way when flagging is not considered incidental. Major work may include the following activities:

- Demolition of a structure over tracks;
- Overpass or underpass construction;
- Overpass deck replacement or widening; and
- Extensive or significant longitudinal grading on railroad right-of-way.

Use STSP 107-034 when the work is considered more than minor, and the total amount of flagging is expected to exceed 10 –15 days.

If a track clearance fence is to be provided, STSP 616-050, Fence Track Clearance, must be used along with STSP 107-034. Use the appropriate sections of STSP 107-065, Utilities when there are fiber optic lines located on railroad right of way.

35.1 Railroad Contact Information

The addresses and contact personnel for the five major railroad companies operating in Wisconsin are provided in the STSP template.

LIST OF ATTACHMENTS

Attachment 35.1 Railroad Special Provisions Selection

FDM 19-15-45 Hauling Restrictions

The Hauling Restrictions special provision is developed to fit the circumstances of the particular contract and may include the following:

- 1. Methods for safely hauling across live traffic lanes.
- 2. Locations where crossings are permitted or are not allowed.
- 3. Time limitations for hauling across traffic lanes.

45.1 Sample Special Provision

Hauling Restrictions.

The contractor shall at all times conduct his operations in a manner that will cause a minimum of inconvenience to the free flow of vehicles on roadways carrying USH 151 traffic. The contractor will be allowed access to these roads at locations approved by the engineer.

When hauling across any public roads, the contractor shall provide the necessary flagging and signing to control the construction equipment movements. The flagging operations shall not impede traffic flow on the public roads.

No earth moving equipment shall travel on the existing roadway (northbound lanes) after the concrete has been removed which would cause rutting or damage to the exposed base course.

August 17, 2020

FDM 19-15-55 Environmental Protection

Review sections 107.18, 107.19, and 107.20 in the standard specifications before writing environmental protection articles for a specific project. Do not duplicate environmental protection requirements that are already mandated by the standard specifications. Project-specific environmental protection articles in the special provisions may include:

- 1. STSP 107-054, add to all projects that require a U.S. Army Corps of Engineers permit or have wetland impacts.
- 2. STSP 107-056 and/or STSP107-057, add to all projects that have more than one acre of ground disturbance, requiring a WPDES or NPDES Construction Storm Water Discharge Permit.
- 3. Description and/or special requirements needed to protect endangered or threatened species found within the project's limits.
- 4. Descriptions of sensitive areas on or near the project and any considerations for those areas.

55.1 Bridge Construction in Streams During Fish Spawning

Many bridge contracts contain time constraints provisions which prohibit construction operations from occurring in streams, between certain dates, or before or after a particular date. These dates are intended to cover fish spawning periods and are determined during the environmental process, which may occur years before construction. The actual fish spawning period may vary from year to year, and any modification to the contract time constraint would require a "No Cost" contract change order.

Use the following special provision to limit when a contractor can work in a stream due to fish spawning.

Fish Spawning

There shall be no instream disturbance of <u>(name of river)</u> as a result of construction activity under or for this contract [from <u>(date)</u> to <u>(date)</u> both dates inclusive], or [prior to <u>(date)</u> or [after <u>(date)</u>] in order to avoid adverse impacts upon the spawning of <u>(fish species)</u>.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

This provision should supplement the Prosecution and Progress article, since it affects when the contractor can perform contract work. To use this STSP, select the FISH button, which is found under all three contract-type tabs in the general template used to write special provisions, stsp-template.dotm, located at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

55.2 Migratory Bird Nests on Structures

If migratory birds are present and the bridge must be netted to preclude bird nesting, use the latest version of the following special provision:

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from <u>Select from drop-down</u> to August 31.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining a suitable deterrent device on the remaining structure prior to nesting activity under the bid item <u>Select from drop-down</u>. As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

This provision should be included as part of the Prosecution and Progress article, since it affects when the contractor can perform contract work. To use this STSP, select the BIRDS button, which is found under all three contract-type tabs in the general template used to write special provisions, stsp-template.dotm, located at: https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx.

Additionally, use STSP 999-200 and the associated bid items to have the contractor install and/or maintain the

bird deterrent system.

55.3 Other Environmental Protection STSPs

55.3.1 Asbestos Containing Materials on Bridges

During the design of a project that contains a structure being demolished or rehabilitated, the department requires that a licensed asbestos inspector inspects all bridges being demolished or rehabilitated for asbestos containing materials (ACM). The results of the asbestos inspection for the structure are included in the Hazardous Materials section of the environmental document and in the special provisions. There are three STSPs, which can be used to inform the contractor whether asbestos is present and whether he will be responsible for its removal. The three STSPs are:

STSP Number	STSP Title and General Directions for Use		
107-120	Notice to Contractor, Asbestos Containing Materials on Structure. Use if ACM are found on the structure but will not be disturbed during construction.		
107-125	Notice to Contractor, Notification of Demolition and/or Renovation. No Asbestos Found. Use only for structures to be demolished that have been inspected and have no asbestos or no regulated levels of asbestos are present.		
203-005	Abatement of Asbestos Containing Material (Structure), Item 203.0211.S. Use STSP 203-005 and bid item 203.0211.S if ACM are found, and the contractor must remove all ACM during construction.		

For more information about inspecting bridges for asbestos, see FDM 21-5 Asbestos on Bridges.

55.3.2 Contaminated Soils

The department evaluates all transportation improvement projects under its jurisdiction to determine if they warrant a hazardous materials investigation. If hazardous materials are present and the department cannot avoid disturbing these materials, the department remediates the contamination.

Several STSPs are available that pertain to contaminated soils and how the contractor shall encounter these soils within the project's limits. Before using any of these articles, consult with the department's environmental coordinator or consultant. These STSPs include:

STSP Number STSP Title and General Directions for Use

- 107-100 **Notice to Contractor Contamination Beyond Construction Limits**. Use this STSP if petroleum contamination is located beyond the construction limits and it is not anticipated that the contractor shall encounter the contamination.
- 107-105 **Notice to Contractor Contamination Removed Before Construction**. Use this STSP if there is contamination within construction limits, but others will remove it before construction.
- 107-110 **Notice to Contractor Contamination Removed During Construction**. Use this STSP if petroleum contamination is located within the construction limits, but others will remove it during construction.
- 107-115 Health and Safety Requirements for Workers Remediating Petroleum Contamination.
- 107-030 **Notice to Contractor Creosote Lumber.** Use this STSP if work involves removal of creosote lumber.

STSP Number	STSP Title and General Directions for Use
205-003	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S . Use this STSP and STSP 107-115 if petroleum contaminated soil is present, and the highway contractor will be responsible for excavating, loading, hauling, and disposing of the contaminated soils.
205-005	Excavation, Hauling, and Disposal of Creosote Contaminated Soil and Management of Contaminated Groundwater, Item 205.0505.S. Use this STSP if creosote contaminated soil and groundwater is present, and the highway contractor will be responsible for excavating, loading, hauling, and disposing of the contaminated soils and groundwater.
205-006	Excavation, Hauling, and Disposal of Creosote Contaminated Soil, Item 205.0506.S. Use this STSP if creosote contaminated soil and groundwater is present, and the highway contractor will be responsible for excavating, loading, hauling, and disposing of the contaminated soils.

55.3.3 Bridge Painting - Labeling and Disposal of Waste

Several STSPs and bid items are available to minimize adverse impacts from repainting structures. The department requires contractors to contain paint chips or to prevent paint chips from falling into the water.

STSP Number	STSP Title and General Directions for Use		
107-115	Health and Safety Requirements for Workers Remediating Petroleum Contamination.		
517-037	Containment and Collection of Waste Materials (Structure), Item 517.4001.S.		
517-055	Labeling and Disposal of Waste Material. This STSP is typically used with STSP 517-050, STSP 517-060 and STSP 517-065.		
517-060	Portable Decontamination Facility, Item 517.6001.S. This STSP is typically used with STSP STSP 517-050, STSP 517-055 and STSP 517-065.		
517-065	Negative Pressure Containment and Collection of Waste Materials (Structure), Item 517.4501.S. If using STSP 517-065, always include STSP 517-055 and STSP 517-060.		

55.3.4 Other Environmental STSPs

Other environmental STSPs include:

STSP Number	STSP Title and General Directions for Use
107-055	Environmental Protection – Aquatic Exotic Species Control.
107-060	Construction Over or Adjacent to Navigable Waters.
107-070	Erosion Control Structures. Required on all contracts with waterway structures.

FDM 19-15-60 Erosion Control

October 3, 2016

The Erosion Control special provision should include any special erosion control requirements that must be relayed to the contractor. Examples of such requirements are:

- 1. Any limitations to the amount of erodible surface area which may be exposed at any one time.
- 2. Any special scheduling or staging requirements needed to minimize erosion.
- 3. Any over-winter and/or spring flooding protection measures needed. This is especially important on projects where work will be suspended. Maintenance of these control measures should be considered during this time period.
- 4. A brief description of the interim and permanent erosion control stabilization practices to be used on the project.
- 5. A brief description of the structural practices to be used to divert flow away from exposed soils, store flows, or limit runoff and the discharge of pollutants. Unless otherwise specifically approved in writing by the DNR, structural measures are to be installed on upland sites.

- 6. Any special requirements needed due to the erosion susceptibility of certain slopes and/or soil types.
- 7. Any other special erosion control requirements specific to the project.

60.1 Sample Special Provisions

Erosion Control.

Add the following to standard spec107.20:

Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and re-topsoiling to minimize the period of exposure to possible erosion.

Re-topsoil raded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, and mulch all topsoiled areas within ten (calendar) (working) days after placement of topsoil.

Erosion Control.

Add the following to standard spec 107.20:

From Station _____, RT/LT, to Station _____, RT/LT limit the duration that erodible land is exposed to the elements by grubbing, excavation, borrow or fill operations, to (<u>15</u>) (working) (calendar) days prior to the final trimming, finishing, and seeding operations.

Implement best management practices for both temporary and permanent erosion control measures. These measures are outlined in the contract plans.

Construct intercepting embankments and intercepting ditches, as shown on the plans, to direct runoff away from exposed soils.

Construct sediment basins, ditch checks, riprap, silt fence erosion mat, as shown on the plans, to store runoff flows, limit runoff and limit the discharge of pollutants.

Erosion Control.

Add the following to standard spec 107.20:

Immediately after grading is completed, perform work on the finishing items pertaining to erosion control at the locations designated by the engineer.

FDM 19-15-75 Specification Modifications

March 16, 2018

Consider using a specification modification for modifying an existing standard bid item. Many special provision bid items (SPVs), including those in region SPV libraries, can use a specification modification instead of an SPV article. Use a specification modification if the item requirements are narrowed from the standard item or the requirements are not significantly different from the standard item. The estimated change in cost should be compared to the range of historic prices to determine if the specification modification is significant. Take into consideration how the contractor's means and methods will vary based upon the specification modification. Take into consideration how bid prices for standard items can vary based upon the project's characteristics, including handwork, small quantities, large quantities divided into many locations or stages, utility coordination, or a constrained work environment when comparing the estimate unit cost versus a bid received on a different project.

Include articles as necessary in the special provisions to modify the standard specifications to meet a project's needs. For example, modifications to the standard specifications may be necessary to specify that the contractor uses different equipment or materials, alternate construction materials, or different application rates. An article may be necessary to change who the responsible party is for a particular action, or to change how the item will be measured in the field and/or paid. Modifications should be reviewed for the possible need to add a non-standard SPV item to the contract. Refer to <u>FDM 19-15-80</u> for guidelines on writing special provision articles for project-specific bid items.

75.1 Sample Special Provisions

The first two samples provided are STSPs that need to be completed on a project specific basis. In STSP 208-005, the designer must specify the material requirements of select borrow needed on the project. In the second example, the designer must specify the amount of daily damages that the department will assess the contractor if the care specialist does not perform the required care needed to ensure that plantings become well established.

Select Borrow.

Conform to the requirements of standard spec 208 and as hereinafter provided.

Material

Furnish and use material that consists of granular material meeting the following requirements: (enter the project-specific material requirements).

208-005 (20031103)

Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of \$ (the dollar amount for damages in that particular project) to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

632-005 (20070510)

The next two examples are modifications that have resulted from regional experience and/or other facilities development procedures.

Base Aggregate Dense.

Replace the fracture requirement as specified in standard spec 301.2.3 for virgin aggregate, crushed stone or crushed gravel with the following:

At least 80 percent, by count, of the number of particles of aggregate retained on the No. 4 and larger sieves, for dense aggregate base, shall have at least one fractured face.

Concrete Driveway.

Add the following to standard spec 416.3.4:

Contraction joints, if necessary, are required to be sawed. Saw contraction joints at least one-third the depth of the concrete driveway and approximately 1/8-inch wide. Perform the sawing as soon as possible after the concrete sets sufficiently to prevent raveling during sawing and before shrinkage cracking occurs.

FDM 19-15-80 Special Provision Bid Items SPV

February 15, 2023

A non-standard bid item is identified by an item number that begins with "SPV" (for example, Item SPV.0060.01), is not contained or listed in the standard specifications' Schedule of Bid Items:

https://wisconsindot.gov/rdwy/stndspec/ss-99-10.pdf

and is not a dot S (.S) item covered by one of the STSPs. See <u>FDM 19-15-85</u> for information about the department's STSPs. Examples of nonstandard bid items include items for sanitary sewer work, special lighting needs, special seed mixes and landscaping plants, or special architectural treatments to structures. Include articles in the special provisions document for ALL bid items in a contract that begin with the prefix "SPV."

The department would like to restrict the use of project specific special provisions with SPV bid items to only those cases where there are no closely related existing state-wide specifications. A specification modification (see <u>FDM 19-15-75</u>) or a STSP modification (see <u>FDM 19-15-85.1</u>) may be used instead.

Issues with Project Specific Special Provisions:

1. Special provision items may not have been approved by tech committees.

- 2. Contractors must interpret the SPVs, increasing risk and cost.
- 3. Bid history is difficult to obtain, if there is any.
- 4. Similar SPV item names may be completely different from project to project.
- 5. Non-standard items may be in short supply and are more expensive.
- 6. If the result for a task is the same for an SPV and a standard bid item, then use the standard bid item.
 - The bid item is consistent for all projects.
 - Bid history is much easier to find.
 - Experience with common items reduces costs and risk.
 - Standard bid items are more available.
- 7. If you must use an SPV, try to utilize SPV libraries maintained by each region or the Bureau of Structures first.

The Bureau of Structures:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/strct/special-provisions.aspx

maintains many articles, which are not STSPs, on their web page for nonstandard structure items.

The regions maintain articles, which are not STSPs, for special items that are unique to their particular area.

Articles for other nonstandard bid items must be written and typed specifically for that particular bid item and project. When writing special provisions for a specific project and using the general special provisions template, stsp-template.dotm, insert an article for a nonstandard bid item using this method:

- 1. Place the cursor at the appropriate location within the special provisions for that SPV item.
- 2. Type in 000-000, and press F3. A building block template will be added at that location; use it to write the SPV article for the project-specific item.

80.1 Assigning Numbers to SPV Items

Assign numbers for SPV bid items following this format:

- The first three digits are "SPV" followed by a period.
- After the first period, there are 4 numbers followed by a second period. These numbers correspond to
 how the special bid item is going to be measured. For example, if a special bid item is measured in
 linear feet, its bid item number would begin with "SPV.0090", and if a special bid item is measured by
 the unit, its bid item would begin with "SPV.0060." Refer to <u>Table 80.1</u> for a list of special provision bid
 item numbers, descriptions, and their corresponding units of measure.

Table 80.1 Special Provisions (SPV) Bid Item Numbers, Units and Descriptions

Item Number	Unit	Description
SPV.0005	ACRE	Acre
SPV.0010	AD	Arrow Day
SPV.0015	BBL	Barrel
SPV.0020	BD	Board Day
SPV.0025	CF	Cubic Foot
SPV.0030	CWT	Hundredweight
SPV.0035	CY	Cubic Yard
SPV.0040	CYMI	Cubic Yard Mile
SPV.0045	DAY	Day
SPV.0050	DD	Drum Day
SPV.0055	DOL	Dollar
SPV.0060	EACH	Each

SPV.0065	FA	Fuel Cost Adjustments
SPV.0070	GAL	Gallon
SPV.0075	HRS	Hours
SPV.0080	ID	Inch Diameter
SPV.0085	LB	Pound
SPV.0090	LF	Linear Foot
SPV.0095	LM	Linear Mile
SPV.0100	LOT	Lot
SPV.0110	MBM	1000 Foot Board Measure
SPV.0120	MGAL	1000 Gallon Unit
SPV.0125	МІ	Mile
SPV.0130	MKFT	Board Foot
SPV.0135	MON	Month
SPV.0140	NONE	None
SPV.0145	OZ	Ounce
SPV.0150	PD	Person Day
SPV.0152	PH	Person Hour
SPV.0153	PR	Pair
SPV.0155	SACK	Sack
SPV.0160	SD	Sign Day
SPV.0165	SF	Square Foot
SPV.0170	STA	Station
SPV.0175	STYD	Station Yard
SPV.0180	SY	Square Yard
SPV.0185	TD	Ton Day
SPV.0187	TF	Track Foot
SPV.0190	ТМ	Ton Mile
SPV.0195	TON	Ton
SPV.0200	VF	Vertical Feet
SPV.0205	WD	Working Day
SPV.0210	WEEK	Week
SPV.0215	YDMI	Yard Mile
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- The number following the second period, which is also the beginning of the item's supplemental description entered in AASHTOWare, provides the special bid item with a unique bid item number. All supplemental descriptions begin with a number, such as 01.,02.,03., and 04., which aids in organizing the special provisions. The number should be two digits (01., 02., 03., etc.) unless there are more than 100 special bid items being measured in the same manner (in this case, the supplemental description should begin with three digits such as 001., 002., and 003.). If, for example, the contract will have three special bid items measured by the linear foot, then most likely the items will be assigned the numbers SPV.0090.01, SPV.0090.02, and SPV.0090.03. Item numbers do not have to be in numerical

order, if additions or deletions are made. (Note: The word "SPECIAL" is automatically added to the end of the title for all SPV items in AASHTOWare.)

80.2 Writing Special Provision Articles for Non-Standard Bid Items

Because most special provisions written for non-standard bid items are project-specific, they are written from scratch, and not used again on other projects.

80.2.1 Special Provision Bid Item Description and Title

Ensure that the item titles in the special provision articles match exactly the item titles as they are shown in the plan's EOQ sheets, the plan's Miscellaneous Quantities sheets, the Engineer's Estimate and the proposal's Schedule of Items. Generally, the word "Special" is NOT needed in the bid item's title of an SPV item; the fact that it is an SPV item makes it a special item in the contract. Use the word "Special" in the title only when, by adding that word in the item title, the bid item title of the SPV item is made distinguishable from the title of a standard bid item.

80.2.2 Special Provision Text

Whenever possible, write in the *active voice-imperative mood* style using commands to direct the contractor's work. When using active voice, do not use the words "the contractor shall"; instead, specify actions needed by the contractor to complete the work (for example, clean the pavement surface, assemble the sections, or replace the fuse). Often the sentence will begin with a verb. Do not use active voice if it may be confusing as to who is actually responsible for completing the work.

For all actions that will be undertaken by a party other than the contractor, use phrases such as "The department will..." or "The engineer will..." or "AT&T will relocate..." to clearly establish the responsible party under the contract for all actions. Use "the engineer" if it will be the responsibility of project personnel at the project site, and use "the department" if it will be the responsibility of a department employee in a region or bureau, or quality assurance person, or someone at an independent lab. See <u>standard spec 101.1</u> for general information on writing active voice text.

Avoid indefinite phrases such as "to the satisfaction of the engineer" or "meeting approval of the engineer." Not only are these sentences ambiguous, they make a proposal un-biddable, because a bidder does not know to what standard the work will be held. Be careful about writing phrases such as "submit (item) for approval" or "(item) will be approved by the engineer," since the logic of the words does not allow the engineer's disapproval. For example, instead of writing "All lane closures shall be approved by the engineer," write, "Ensure that all lane closures have been approved by the engineer before using," or "Obtain approval from the engineer before closing the lane."

Avoid writing phrases and sentences that can be interpreted to have more than one meaning. For example, consider the sentence "Furnish nuts and bolts of stainless steel." This specification can be interpreted two ways, only the bolts must be made of stainless steel OR both the nuts and the bolts must be made of stainless steel.

Avoid repetition. Do not repeat verbiage that is stated elsewhere in the special provisions, the standard specifications, or in references. Do not repeat what is already shown on the plan details or standard detail drawings. Often it is more effective to show dimensions, tolerances, and layout in plan details, and then to direct the contractor to the plans by writing in the special provision article "...as the plans show" or "in accordance to the plan details."

Be careful when using *lists of materials or requirements*, and, if using a list, ensure that it is complete. A contractor may assume that his obligation is to perform ONLY the work that is specifically enumerated on the list and may not perform work that the designer had assumed was also part of the work but did not specifically add to the list.

When *cross-referencing* another article in the special provisions, a standard detail drawing, or another bid item, refer to them by their title, not their number. When standard detail drawings are updated, they are given a new number, bid numbers are sometimes changed, and the numbering of articles within special provisions <u>often</u> change during the PS&E review process.

Capitalize bid item names; little else in the special provisions is capitalized. Do not capitalize standard

specifications, section, engineer, contractor, special provisions, plans, contractor, work, or department.

Avoid explanations; specifications provide requirements and directions; they do not explain. Consider this sentence: "Use a sheepsfoot roller to compact the clay subbase." By adding the words "to compact the clay subbase", a contractor may decide that he does not need to use a sheepsfoot roller if he performs a soil analysis and determines that the soil technically does not classify as a clay, or he may decide to use a different piece of equipment that in his opinion compacts clay better than a sheepsfoot roller. Both interpretations are fair, and most likely would result in the contractor using a piece of equipment other than what the designer had intended. The designer should have stated instead "Use a sheepsfoot roller."

80.2.3 Writing an SPV Article using a Five-Part Format

Use only these first-level section titles when writing articles for SPV items:

- A Description
- B Materials
- C Construction
- D Measurement
- E Payment

Do not include additional first-level subsections such as Equipment. Instead, include those requirements under section B Materials, or section C Construction, or both. When choosing whether to place specifications in the Materials or Construction section, place actions that are completed at a plant or other off-grade location under B Materials and place actions completed with on-grade equipment under C Construction.

If there are no requirements under one or more of these five first-level sections, retain the 5-part format by providing a space holder. For example, if the special bid item is Salvaging Cabinet, and there is no need to write specifications under B Materials, replace B Materials with B (Vacant) as follows:

- A Description
- B (Vacant)
- C Construction
- D Measurement
- E Payment

Make use of subsections, if subsections will help clarify the special item's requirements. For example, suppose the contractor needs to furnish a control unit that has several components. Some general specifications may pertain to all of the controller's components, while more specific requirements pertain to each component. In this case, section B Materials may be subdivided into the following subsections:

- B Materials
- B.1 General
- B.2 Component A
- B.3 Component B
- B.4 Component C

If there are two different types of controls in a complex control unit, and each type has the same general requirements, section B Materials may be subdivided as:

- B Materials
- B.1 General Requirements for Type 1 Control
- B.1.1 First Component of Type 1 Control
- B.1.2 Second Component of Type 1 Control
- B.2 General Requirements for Type 2 Control
- B.2.1 First Component of Type 2 Control
- B.2.2 Second Component of Type 2 Control

The following outline is an example of how section C may be subdivided for specifying how various components of a complex control system is installed. Subsection C.1 may include general requirements that govern how to install the entire system. Subsequent subsections may include installation and testing requirements for each of the components.

- C Construction
- C.1 General
- C.2 Component A
- C.2.1 Installing Component A
- C.2.2 Testing Component A
- C.3 Component B
- C.3.1 Installing Component B
- C.3.2 Testing Component B

Use bulleted lists instead of complicated compound sentences to clarify series. For example, if a contractor needs to provide several items, state "...provide the following:" or "...provide all of the following:" If the contractor can choose providing one of several items, use an "or" series and write "...provide one of the following:" Remember that it is important to ensure that each listing used is complete.

80.2.3.1 A Description

In this introductory section, give only a brief description of the work. Typically, this is a sentence or two that lets the reader know if they are reading the right special provision. Do not include usage guidance or bid items. Do not include requirements for materials, construction, or a breakdown of what is paid for under each item.

80.2.3.2 B Materials

Provide information on materials to be used in the work item. Detail the properties of each material required, and the methods used for testing and sampling the materials' properties. Do not reference specific update years in ASTM, AASHTO, or other references; <u>Standard Spec 101.2</u>(2) states: "Unless specified by year or date, cited publications refer to the most recent issue, including interim publications, in effect on the bid closing date."

Do not specify proprietary items, unless a Proprietary Product Justification has been approved by the region. All approvals of proprietary products should be resolved prior to the PS&E submittal. Refer to <u>FDM 19-1-5</u>. If proprietary products need to be specified in the article, and no Proprietary Product Justification has been submitted for the proprietary products, provide the contractor with the choice of using a minimum of three different proprietary items (from three different companies) that are equal to each other functionally. Also, do not write specifications that can only be met by one proprietary product.

80.2.3.3 C Construction

Describe the sequence of construction operations and the end product. Detail the requirements necessary to complete the work but be generic in method to allow and encourage the use of improved equipment and the application of new and advanced construction methods.

Do not repeat what is already provided in the standard detail drawings or other plan details. Dimensions, tolerances, and layout are often most effectively communicated using drawings. Information can be specified to indicate, "...as the plans show."

Clauses which require warranties or guarantees are not allowed except in unusual circumstances. Ref. 23CFR 645.413. See <u>FDM 19-15-3</u>.

80.2.3.4 D Measurement

Use the following boilerplate statements in section D Measurement:

For all units of measure except Each and LF: The department will measure (Bid Item Name with Capital Letters on First Letter of Each Word) by the (unit of measure) acceptably completed. For example,

The department will measure Architectural Surface Treatment by the square yard, acceptably completed. -OR-

The department will measure Concrete Sidewalk 6-Inch Red in area by the square foot, acceptably completed.

Each: The department will measure (Bid Item Name with Capital Letter on First Letter of Each Word) as each individual (bid item) acceptably completed. For example:

The department will measure Stone Ditch Check Temporary as each individual ditch check, acceptably completed.

Linear Foot (LF): The department will measure (Bid Item Name with Capital Letters on First Letter of Each Word) in length by the linear foot acceptably completed. For example,

The department will measure Curb and Gutter 36-Inch Type J in length by the linear foot, acceptably completed.

Do not provide metric equivalents for bid item units.

80.2.3.5 E Payment

Begin section E Payment with the following phrase: "The department will pay for the measured quantity at the contract unit price under the following bid item:" Add a table without borders that has three columns and the following three headings: ITEM NUMBER, DESCRIPTION, and UNIT. Begin the second paragraph of E Payment with the words "Payment is full compensation for." After these words, list the key elements of work that were required under sections B Materials and C Construction. Do not add requirements that were not previously mentioned in the article. For example,

The department will pay for the measured quantity at the contract unit price under the following bid item:			
ITEM NUMBER	DESCRIPTION	UNIT	
SPV.0060.01	Stone Ditch Check Temporary	Each	

Payment is full compensation for furnishing and placing the stone; maintaining the ditch check; removing the ditch check when it is no longer necessary; and for properly disposing of all materials.

If there is work associated with the bid item that will be paid for under other bid items, add a paragraph to describe this information. Begin the paragraph with "The department will pay separately for (list items or work) under that (those) respective bid item(s).

Do not add the language "and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work." This is adequately covered in the Standard Specifications for Highway and Structure Construction.

Do not provide metric equivalents for bid item units.

80.2.4 Writing Articles for SPV Items That Do Not Require a 5-Part Format

It is not necessary to use the 5-part format for a special item, if that special bid item will be furnished, constructed, measured and paid for in the same manner as a corresponding standard bid item. For example, if a city requires a special curb section to match their existing curb and the new dimensions are provided in a construction detail, an appropriate article may look like:

Concrete Curb and Gutter 30-Inch Type X, Item SPV.0090.04.

Construct the concrete curb and gutter in accordance to section 601 of the standard specifications and in accordance to the plan details.

80.3 Using Numbers in Technical Documents

In general, spell out the numbers zero through ten and use figures for larger numbers. There are many exceptions, including:

- Always spell out a number that is at the beginning of a sentence regardless of what the number is. For example, 40 is typically written in numerals but at the beginning of a sentence it would be written as a word, i.e., Forty pounds of ...
- Always use numerals when a unit of measurement follows. Example 3-feet, 240 pounds, 16 inches.
- Use numerals for all numbers when there are two or more numbers for related quantities in the same sentence, such as, 5 of 34 engineers recommend...
- Always spell out approximate values, such as about four years, or approximately two times larger.
- Do not spell out and use figures for numbers. For example, do not write "five (5) engineers" or "five (5) inches"; instead, write "five engineers" and "5 inches."

80.4 Using Units in Technical Documents

All numerical values that have dimensions must have their units specified. General guidelines are:

- If there are two numbers with the same unit in the same phrase, put the unit after the second number; for example, "between 4 and 5 inches."
- All units that are named after a person have a lower-case first letter when written out, but an uppercase first letter when abbreviated. Hence, the proper abbreviation for volt is V, and the proper abbreviation for kilovolt is kV. The proper abbreviation for megahertz is MHz; M denotes mega, m can denote either meter or the prefix milli.
- The proper abbreviation for second is s, not sec.
- There should be one blank space between a number and a unit. If necessary, use a hard space (Ctrl+Shift+Spacebar) to keep the number and its unit on the same line of text.

- If the number is used as an adjective or descriptor, add a hyphen between the number and the unit. For example, 6-inch pipe; 13-foot pole.
- Temperature has the unit of degree. Place one blank space between the degree symbol and the degree type, e.g. 68° F or 20° C (or write out the word degrees; for example, 68 degrees F).

LIST OF ATTACHMENTS

Attachment 80.1 Nonstandard Bid Item Sample

FDM 19-15-85 Standardized Special Provisions Bid Items (STSP) ###.####.S

May 17, 2021

The BPD maintains a library of special provision articles, called the STSPs, that are commonly used in many contracts.

The STSPs cover a wide range of subjects including many addressed previously in this section of Chapter 19. Where appropriate, use STSPs when preparing special provisions for department contracts. Often, the STSPs are written by department experts or committees that have studied that bid item or contractual concern. Also, contractors are familiar with the bid items and contents of the STSPs.

There are two types of STSPs. One type is a bid item with a unique bid item number ###.####.S format and a bid item description. The other type of STSP does not have a unique bid item associated with it or is bid as a standard bid item. These contain information that modify, supplement, delete, or add to the language contained in the standard specifications.

Some STSPs require the preparer to provide additional project-specific information, such as project ID, structure number, or product thickness that needs to be filled out in the supplemental description of the item, and in the article's title. This information is identified in lower case letters with parentheses, (information). Some project-specific information may also be needed in the body of the article.

The numbers assigned to the STSPs are coordinated with the numbering system used in the Standard Specifications for Highway and Structure Construction. The first three digits refer to the section in the standard specifications where similar information or bid items are located. The last three digits are numbers used to identify each STSP. For example, STSP 415-010 is the special provision article for Concrete Pavement Fast Track (Inch), Item 415.1150.S. The first three digits, 415, indicates that Section 415 Concrete Pavement in the standard specifications will control this work, and the last three digits, 010, makes this STSP number unique.

85.1 Modifying an Existing STSP

If necessary, an existing, numbered STSP can be revised. However, if revisions are made to an STSP, remove the date and STSP number at the end of the STSP, and note what revisions were made to that STSP in the plan letter. If the PS&E preparer fails to note the revisions in the plan letter, the Proposals Management Section may inadvertently replace that article with the most current version of that STSP. If revisions are made, and the date is not removed, contractors may not realize that the STSP has been changed and may not prepare their bids accordingly.

If additions are needed to an existing STSP, place the additions after the date. In these cases, do not remove the date at the end of the STSP, but still note the revisions in the plan letter.

Consider modifying an existing STSP instead of a SPV article. Use a STSP modification as long as the item requirements are narrowed from the "S" item or the requirements are not significantly different from the ".S" item. The estimated change in cost should be compared to the range of historic prices to determine if the specification modification is significant. Take into consideration how the contractor's means and methods will vary based upon the specification modification. Take into consideration how bid prices for standard items can vary based upon the project's characteristics, including handwork, small quantities, large quantities divided into many locations or stages, utility coordination, or a constrained work environment when comparing the estimate unit cost versus a bid received on a different project.

If a SPV item is necessary, refer to <u>FDM 19-15-80</u> for guidelines on writing special provision articles for SPV bid items.

85.2 STSP Folder Updates

The BPD typically updates the STSPs in January and July of each year. The revision date is placed at the top of the STSP template, stsp-template.dotm, and at the end of each affected article. Always use the most recent version of the STSPs when creating special provisions. All STSPs are maintained in the STSP template; therefore, the current STSP template contains all of the updated STSPs.

When the STSPs are updated, the BPD writes a log that lists all STSPs added, revised, or deleted. Engineering

staff is notified by email when changes are made. After the BPD releases an STSP update, delete the STSP template (stsp-template.dotm) that was stored in the folder containing your PS&E documents and replace it with the updated STSP template. For information on using the STSP template, refer to the manual *Creating Special Provisions* at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

If the region feels permanent revisions should be made to an STSP or if the region has a potential new STSP, they should contact the Special Provisions Editor at (608) 266-3811.

85.3 The Special Provisions Website

The documents needed to compile Special Provisions are kept at the following location:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/stsp.aspx

This site contains:

- Form DT1502, the Highway Work Proposal cover sheet;
- The most recent STSP Log;
- An Excel spreadsheet (Index.xlsx), a listing of all STSPs, from which a designer can choose the appropriate STSPs for a project, filter the listing so that only the appropriate STSPs remain, and then use the list to compile the special provisions.
- The STSP template (stsp-template.dotm), which contains all of the STSPs as building blocks;
- A read only pdf file of all the STSP articles;
- The Plan Letter Template;
- The Special Provisions Insert form;
- The special provisions Insert Guidelines;
- The training manual Creating Special Provisions;
- Guidelines to correct common mistakes when preparing special provisions; and
- Shortcuts to help create special provisions within the template.

FDM 19-15-90 Additional Special Provisions

February 15, 2023

Contract special provisions specify requirements that are not in the standard specifications and plans. The department applies additional contract conditions by adding ASPs to contracts. When assembling the proposal, the Proposal Management Section inserts the ASPs into the contract documents.

The current versions of ASPs are located at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx

The current ASPs are:

ASP-1	TrANS On the Job Training Apprenticeships (at \$5/hour)	
ASP-1.1	TrANS On the Job Voluntary Incentive Program (at \$5/hour and \$10/hour)	
ASP-1(10)	TrANS On the Job Training Apprenticeships (at \$10/hour)	
ASP-3	Disadvantaged Business Enterprise Development	
ASP-4	Payment to Subcontractors	
ASP-5	Fuel Cost Adjustment	
ASP-6	Modifications to the Standard Specifications	
ASP-7	Reporting 1 st Tier and DBE Payments During Construction	
ASP-8	Requirements for Contractors and Subcontractors (currently obsolete)	
ASP-9	Electronic Certified Payroll Submittal via the Civil Rights Compliance System	

90.1 Coordination with the Region Labor Compliance Coordinator

The person responsible for submitting the PS&E documents in or for a region should confer with the regional Labor Compliance Coordinator to determine if ASP 1 should be inserted into the contract and should provide that information in the plan letter. If the region Labor Compliance Coordinator determines that ASP 1 be included, then list the recommended number of trainees and the number of hours for both TrANS graduates and TrANS apprentices in the plan letter.

90.2 ASP Descriptions

ASP-1: TrANS On-the-Job Training Apprenticeships

The TrANS On-the-Job Apprenticeships ASP is utilized on those federally funded projects that support a significant amount of apprenticeship work and laborer work; in effect, jobs which have the potential for providing at least 150 training hours or more per individual trainee. The region's Labor Compliance Coordinator makes this determination; and provides the design engineer with the following information:

On-the-Job Training:

ASP 1:_____TrANS Graduate(s), _____hours @ \$5.00 per hour, Item ASP.1T0G

ASP 1:_____TrANS Apprentice(s), ____hours @ \$5.00 per hour, Item ASP.1T0A

It is the design engineer's responsibility to ensure that this information is included in the plan letter, and that the appropriate bid items, ASP.1T0A and ASP.1T0G, have been added to the project's estimate.

If ASP-1(10) is used, the appropriate bid items are ASP-1T0A.10 and ASP-1T0G.10, and the pre-established bid price is \$10/hour.

ASP-1.1: TrANS On-the-Job Voluntary Incentive Program

(Note: This is currently a pilot program. This ASP is not listed in the Plan Letter)

The TrANS On-the-Job VIPt procedures provide for recognizing contractors who voluntarily elect to employ more OJT employees that qualify for the City of Milwaukee Residents Preference Program (RPP) to improve the workforce development and employment opportunities for their residents.

On-the-Job Training:

ASP 1.1:_____TrANS Pre-Apprentice,_____hours @ \$5.00 per hour, Item ASP.1.1PA

ASP 1.1: _____TrANS Pre-Apprentice with Advancement. _____hours @ \$10.00 per hour, Item ASP.1.1PAA

It is the design engineer's responsibility to ensure that this information has been added to the project's estimate.

ASP-3: Disadvantaged Business Enterprise Development

This ASP is incorporated into contracts that exhibit significant potential for supporting such activity and are federally funded. The Bureau of Project Development establishes the percentage of DBE participation. Regions may recommend an appropriate level, but they are not required to do so. If the region makes a recommendation, note the recommendation in the plan letter.

ASP-4: Payment to All Subcontractors

This ASP is required in all state and federally funded contracts.

ASP-5: Fuel Cost Adjustment

This special provision is included in all contracts that have 30,000 cubic yards or more of earthwork bid items. If the unit of measure for the item is tons, the quantity shall be converted to CY using 2 TONS/CY. The earthwork bid items are as follows:

Bid Item Number	Name of Bid Item
205.0100	Excavation Common (CY)
205.0200	Excavation Rock (CY)
205.0400	Excavation Marsh (CY)
208.0100	Borrow (CY)
208.1100	Select Borrow (CY)
209.1100	Backfill Granular Grade 1 (CY)
209.1500	Backfill Granular Grade 1 (TON)
209.2100	Backfill Granular Grade 2 (CY)
209.2500	Backfill Granular Grade 2 (TON)
350.0102	Subbase (CY)
350.0104	Subbase (Ton)
350.0115	Subbase 6-Inch (SY)
350.0120	Subbase 7-Inch (SY)
350.0125	Subbase 8-Inch (SY)
350.0130	Subbase 9-Inch (SY)
350.0135	Subbase 10-Inch (SY)
350.0140	Subbase 11-Inch (SY)
350.0145	Subbase 12-Inch (SY)
*SPV.0035.XX	SPV earthwork bid item (CY)
*SPV.0180.XX	SPV earthwork bid item (CY)
*SPV.0195.XX	SPV earthwork bid item (CY)

* SPV earthwork bid item that modifies any above noted standard earthwork bid item with a special provision that requires work substantially conforming to any above noted standard earthwork bid item.

ASP-6: Modifications to the Standard Specifications

This ASP is required in all state and federally funded contracts.

ASP-7: Reporting 1st Tier and DBE Payments During Construction

This ASP is required in all state and federally funded contracts.

ASP-8: EEO/AA Requirements for Contractors and Subcontractors

Previous ASP-8s have expired as those projects have been completed. ASP-8 should not be added to projects unless the region's Labor Compliance Coordinator authorizes its use.

ASP-9: Electronic Certified Payroll Submittal via the Civil Rights Compliance System.

ASP-9 is required in all state and federally funded contracts.

90.3 Buy American Provision

The Buy American Provision applies to all materials specified in special provisions. The Buy American Provision is inserted by the Proposal Management Section into all contracts. A current version can be found under the resources heading at https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx. Refer to CMM https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx. Refer to CMM https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx. Refer to CMM CMM https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx. Refer to https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/cntrct-info.aspx.

COST PLUS TIME BIDDING

Cost Plus Time (A + B) Bidding Special Provisions

Revise Sections 102 and 108 of the Standard Specifications for this project as follows: Add subsection 102.11:

102.11 Cost Plus Time Bidding. A special bidding procedure will be used to determine the successful bidder for this project. This procedure takes into account the price offerings from the bidder and the time the bidder intends to take to complete the work.

The contractor shall complete all of the work necessary to *[enter requirements for work completion]* on this contract prior to 12:01 AM *[insert date]*, or within such extended time as may be allowed.

The completion time allowed for this contract is based on an expedited work schedule.

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The work will be considered completed when it conforms to the Contract and has been accepted in accordance with subsection 109.7.

(a) Preparation of Proposal.

The bidder shall establish the number of calendar days that will be required to complete the work. The calendar day number shall be included in the bid proposal. This calendar day number multiplied by the daily cost shall be added to the total amount bid for the work items. The sum of these two amounts will be used to determine the lowest successful bidder according to the following formula:

(A) + (B x Road User Cost / Day) = Contractor's bid for evaluation of the lowest successful bidder Where:

A = Contractor's total bid for the work items

B = Number of calendar days required to complete the work.

Daily cost for this project = \$ [insert amount]

The above formula will be used solely for the purpose of determining the lowest successful bidder and will have no effect on the actual total bid cost for completing the work.

The total number of calendar days established by the bidder to complete the work shall not exceed *[insert number]* calendar days. Bids showing time for completion in excess of this amount will be considered non-responsive.

(b) Incentive/Disincentive Plan

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below. Under the incentive/disincentive plan discussed below, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

Early Completion of the Work Incentive.

If the Contractor completes the work in less than the total number of days bid, an incentive will be paid to the Contractor. This incentive (I) will equal the number of calendar days bid (B) minus the actual number of calendar days required to complete the work (C) multiplied by the daily cost.

I = (B - C) x (the daily cost)

Nationally, the maximum incentive is limited to 5 percent of the Contractor's total bid for the work items.

Historically, WisDOT has not exceeded 2.5 percent.

Late Completion of the Work Disincentive.

If the number of calendar days required to complete the work is in excess of the total number of calendar days bid, a disincentive will be deducted from payments made to the Contractor. This disincentive (D) will equal the actual number of calendar days required to complete the work (C) minus the number of calendar days bid (B) multiplied by the daily cost.

D = (C - B) x (the daily cost)

There is no limit on the maximum disincentive that will be deducted from payments made to the Contractor.

Add the following sentence to subsection 108.9.3:

The maximum number of calendar days allowed for completion of the Contract is the amount the successful bidder included in the bid proposal, as discussed above in 102.11(a).

Subsection 108.11, first paragraph, shall include the following:

These liquidated damages will be assessed in addition to disincentives for failure to complete the work in the time bid by the Contractor in accordance with subsection 102.11(b).

COST PLUS TIME BIDDING

Cost Plus Time (A + B1 + B2 + B3) Bidding Special Provisions

Revise Sections 102 and 108 of the Standard Specifications for this project as follows: Add subsection 102.11:

102.11 Cost Plus Time Bidding. A special bidding procedure will be used to determine the successful bidder for this project. This procedure takes into account the price offerings from the bidder and the time the bidder intends to take to complete the work.

The contractor shall complete all of the work necessary to *[enter requirements for work completion]* on this contract prior to 12:01 AM *[insert date]*, or within such extended time as may be allowed.

The completion time allowed for this contract is based on an expedited work schedule.

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The work will be considered completed when it conforms to the Contract and has been accepted in accordance with subsection 109.7.

(a) Preparation of Proposal.

The bidder shall establish the number of calendar days that will be required to complete the interim stages of the work. B1 is the time to complete the first stage of a project, B2 the second stage, and B3 the third stage. The calendar day numbers shall be included in the bid proposal. These calendar day numbers multiplied by the daily cost shall be added to the total amount bid for the work items. The sum of these two amounts will be used to determine the lowest successful bidder according to the following formula:

(A) + ((B1 + B2 + B3) x (Road User Cost / Day))= Contractor's bid for evaluation of the lowest successful bidder Where:

> A = Contractor's total bid for the work items B1 + B2 + B3 = Numbers of calendar days required to complete interim stages of the work.

Daily cost for this project = \$ [insert amount]

The above formula will be used solely for the purpose of determining the lowest successful bidder and will have no effect on the actual total bid cost for completing the work.

The total number of calendar days for completion of the interim stages established by the bidder shall not exceed *[insert number]* calendar days. Bids showing time for completion in excess of this amount will be considered non-responsive.

(b) Incentive/Disincentive Plan.

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below. Under the incentive/disincentive plan discussed below, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

Early Completion of the Work Incentive.

If the Contractor completes the work in less than the total number of days bid for the interim stages, an incentive will be paid to the Contractor. This incentive (I) will equal the number of calendar days bid (B) minus the actual number of calendar days required to complete the interim stages of work (C) multiplied by the daily cost.

I = (B - C) x (the daily cost)

The maximum incentive is limited to 5 percent of the Contractor's total bid for the work items.

Late Completion of the Work Disincentive.

If the number of calendar days required to complete the work is in excess of the total number of calendar days bid for the interim stages, a disincentive will be deducted from payments made to the Contractor. This disincentive (D) will equal the actual number of calendar days required to complete the interim stages of work (C) minus the number of calendar days bid (B) multiplied by the daily cost.

D = (C - B) x (the daily cost)

There is no limit on the maximum disincentive that will be deducted from payments made to the Contractor.

Add the following sentence to subsection 108.9.3:

The maximum number of calendar days allowed for completion of the Contract is the amount the successful bidder included in the bid proposal, as discussed above in 102.11(a).

Subsection 108.11, first paragraph, shall include the following:

These liquidated damages will be assessed in addition to disincentives for failure to complete the work in the time bid by the Contractor in accordance with subsection 102.11(b).

LANE RENTAL BIDDING

Cost Plus Time (A + Lane Rental) Bidding Special Provisions

Revise Sections 102 and 108 of the Standard Specifications for this project as follows: Add subsection 102.11:

102.11 Cost Plus Time Bidding. A special bidding procedure will be used to determine the successful bidder for this project. A lane rental assessment fee is included as part of this contract. The bidder shall establish the number of times a lane must be closed to complete the work by using lane closures in accordance with the Plans and these Specifications and include this number in the bid proposal.

The number of lane rental credits allowed shall not exceed *[insert number]* of lane closures and shall not be less than \$ *[insert amount]* per lane closure.

The contractor shall complete all of the work necessary to *[enter requirements for work completion]* on this contract prior to 12:01 AM *[insert date]*, or within such extended time as may be allowed.

The completion time allowed for this contract is based on an expedited work schedule.

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The work will be considered completed when it conforms to the Contract and has been accepted in accordance with subsection 109.7.

(a) Preparation of Proposal

The bidder shall establish the number of times a lane will be closed. This number will be multiplied by the lane rental assessment fee and added to the bid total determined from all other bid items. The sum of these two amounts will be used to determine the lowest successful bidder according to the following formula:

(A) + (B x Lane Rental Assessment Fee / Day) = Contractor's bid for evaluation of the lowest successful bidder Where:

A = Contractor's total bid for the work items

B = Number of lane rental times required to complete the work

Lane rental assessment fee for this project = \$ [insert amount]

The above formula will be used solely for the purpose of determining the lowest successful bidder and will have no effect on the actual total bid cost for completing the work.

If a bidder fails to establish the number of lane rental times, or if the bidder enters a number of lane rental times not within the range specified above, the maximum times shown above will be used for calculations to determine the lowest bid for award purposes. The product of lane rental times the lane rental assessment fee will not be considered in determining payment to the contractor except as described in this special provision.

(b) Incentive/Disincentive Plan

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below. Under the incentive/disincentive plan discussed below, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

Early Completion of the Work Incentive.

If the Contractor completes the work in less than the total number of lane rental times bid, an incentive will be

paid to the Contractor. This incentive (I) will equal the number of lane rental times bid (B) minus the actual number of lane rental times required to complete the work (C) multiplied by the lane rental assessment fee.

I = (B - C) x (the lane rental assessment fee)

The maximum incentive is limited to 5 percent of the Contractor's total bid for the work items.

Late Completion of the Work Disincentive.

If the number of lane rental times required to complete the work is in excess of the total number of lane rental times bid, a disincentive will be deducted from payments made to the Contractor. This disincentive (D) will equal the actual number of lane rental times required to complete the work (C) minus the number of calendar days bid (B) multiplied by the lane rental assessment fee.

D = (C - B) x (the lane rental assessment fee)

There is no limit on the maximum disincentive that will be deducted from payments made to the Contractor.

Add the following sentence to subsection 108.9.3:

The maximum number of lane rental times allowed for completion of the Contract is the amount the successful bidder included in the bid proposal, as discussed above in 102.11(a).

Subsection 108.11, first paragraph, shall include the following:

These liquidated damages will be assessed in addition to disincentives for failure to complete the work in the time bid by the Contractor in accordance with subsection 102.11(b).

COST PLUS TIME BIDDING

<u>Cost Plus Time (Accelerated Bridge Construction) Bidding Special</u> <u>Provisions</u>

Revise Sections 102 and 108 of the Standard Specifications for this project as follows: Add subsection 102.11:

102.11 Cost Plus Time Bidding. A special bidding procedure will be used to determine the successful bidder for this project. This procedure takes into account the price offerings from the bidder and the time the bidder intends to take to complete the work.

The contractor shall complete all of the work necessary to *[enter requirements for work completion]* on this contract prior to 12:01 AM *[insert date]*, or within such extended time as may be allowed.

The completion time allowed for this contract is based on an expedited work schedule. Due to the extreme hardship this project will have on the traveling public, the maximum time the bridge may be closed to traffic is severely limited. It is anticipated that this project will require pre-fabricated bridge elements and systems and state-of-the-art equipment and material technologies, with a potential of using various construction materials. It is possible that precast bridge elements will need to be moved using a self-propelled modular transporter (SPMT).

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The work will be considered completed when it conforms to the Contract and has been accepted in accordance with subsection 109.7.

(a) Preparation of Proposal

The bidder shall establish the number of calendar days that will be required to complete the work. The calendar day number shall be included in the bid proposal. This calendar day number multiplied by the daily cost shall be added to the total amount bid for the work items. The sum of these two amounts will be used to determine the lowest successful bidder according to the following formula:

(A) + (B x Road User Cost / Day) = Contractor's bid for evaluation of the lowest successful bidder Where:

A = Contractor's total bid for the work itemsB = Number of calendar days required to complete the work.

Daily cost for this project = \$ [insert amount]

The above formula will be used solely for the purpose of determining the lowest successful bidder and will have no effect on the actual total bid cost for completing the work.

The total number of calendar days established by the bidder to complete the work shall not exceed *[insert number]* calendar days. Bids showing time for completion in excess of this amount will be considered non-responsive.

(b) Incentive/Disincentive Plan

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below. Under the incentive/disincentive plan discussed below, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

Early Completion of the Work Incentive.

If the Contractor completes the work in less than the total number of days bid, an incentive will be paid to the Contractor. This incentive (I) will equal the number of calendar days bid (B) minus the actual number of calendar days required to complete the work (C) multiplied by the daily cost.

I = (B - C) x (the daily cost)

Nationally, the maximum incentive is limited to 5 percent of the Contractor's total bid for the work items. Historically, WisDOT has not exceeded 2.5 percent.

Late Completion of the Work Disincentive.

If the number of calendar days required to complete the work is in excess of the total number of calendar days bid, a disincentive will be deducted from payments made to the Contractor. This disincentive (D) will equal the actual number of calendar days required to complete the work (C) minus the number of calendar days bid (B) multiplied by the daily cost.

D = (C - B) x (the daily cost)

There is no limit on the maximum disincentive that will be deducted from payments made to the Contractor.

Add the following sentence to subsection 108.9.3:

The maximum number of calendar days allowed for completion of the Contract is the amount the successful bidder included in the bid proposal, as discussed above in 102.11(a).

Subsection 108.11, first paragraph, shall include the following:

These liquidated damages will be assessed in addition to disincentives for failure to complete the work in the time bid by the Contractor in accordance with subsection 102.11(b).

Lane Rental Fee Assessment (Example for Simple Night Work):

1. Lane Rental Fee Assessment

A. General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

If you don't have another project in the vicinity of this project, the following paragraph may be deleted:

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B. Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

• \$XXX per lane, per direction of travel, per hour broken into 15 minute increments

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item "Failing to Open Road to Traffic". The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.

Lane Rental (Example for Multiple Closure Situations):

1. Lane Rental Fee Assessment

A. General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

If you don't have another project in the vicinity of this project, the following paragraph may be deleted:

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B. Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

Night time- \$XXX per lane, per direction of travel, per hour broken into 15 minute increments System Ramp- \$XXX per lane, per direction of travel, per hour broken into 15 minute increments Service Ramp- \$XXX per lane, per direction of travel, per hour broken into 15 minute increments Off Peak- \$XXX per lane, per direction of travel, per hour broken into 15 minute increments On Peak- \$XXX per lane, per direction of travel, per hour broken into 15 minute increments

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.

"Enhanced" Liquidated Damages, Special Provision

Replace standard spec 108.11 paragraph (3) with the following:

The department will assess \$XXX in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

108-055 (20130615)

Incentive/Disincentive for Interim Completion of Work

1. Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S.

A. General

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below.

The contractor shall complete all of the work necessary to XXX on this contract prior to 12:01 AM XXX.

The completion time allowed for this contract is based on an expedited work schedule.

Under this Incentive/Disincentive plan, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

The maximum incentive payment, as shown on the Schedule of Items, is for department accounting purposes. The actual incentive payment the contractor may receive shall be in accordance to section B of this provision.

Incentive payments will not be considered as part of the money value of the work completed for computing time extensions.

B. Incentive Payment

The contractor shall be entitled to an incentive payment for completion of all of the work necessary to XXX on this contract prior to 12:01 AM, XXX.

The incentive payment will be paid at the rate of \$XXX per calendar day, of completion prior to 12:01 AM XXX. The maximum amount of incentive payment cannot exceed \$XXX.

C. Disincentive Pay Reduction

Should the contractor fail to complete all of the work necessary to XXX under this contract prior to 12:01 AM, XXX, the contractor shall be liable to the department for a pay reduction in the amount of \$XXX per calendar day for each calendar day after 12:01 AM, XXX that work remains incomplete. An entire calendar day will be assessed for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.

D. Measurement and Payment

Incentive/Disincentive for interim Completion of Work will be measured by the calendar day and will be paid/assessed at the contract unit price per calendar day.

The unit price per day for an incentive pay adjustment will be compensation in full for completing the work as specified in section B of this provision.

The unit price per day for a disincentive pay reduction will be assessed for failing to complete all the work as specified in section C of this provision.

108-056

<u>COMMENCEMENT AND COMPLETION OF WORK</u> <u>Flexible Notice-to-Proceed Special Provisions</u>

Supplement Section 108 of the Standard Specifications for this project as follows:

The Contractor shall select the date that contract time begins for this project, subject to the following conditions:

- (1) The earliest date shall be \blacklozenge .
- (2) The latest date shall be ♦.
- (3) The Contractor shall notify the Engineer, in writing, at least 30 days before the proposed beginning date. If the earlier date, as stated above, follows the award date by less than 30 days, the Contractor's written notice to the Engineer shall be at least 10 days before the proposed beginning date.
- (4) The date that contract time begins shall be subject to the Region Director's approval.

The Contractor shall complete all work under the contract, ▲ in accordance with the "Notice to Proceed."

If materials stockpiling begins before the beginning date, contract time will not be charged for the stockpiling effort. Stockpiling of materials before the beginning date is subject to the Engineer's approval. If such approval is given, stockpiled material may be paid for in accordance with Section 109.6.3.2.

Salient features to be shown on the Contractor's progress schedule are:

- (1)♥
- (2) 🗸
- (3) 🛛
- (4) ♥

INSTRUCTIONS TO DESIGNERS (delete instructions and symbols from final draft):

- Insert dates
- ▲ Use "within ____ working days" or "within ___ calendar days" and specify number of days.
- List those salient features identified by the Region.

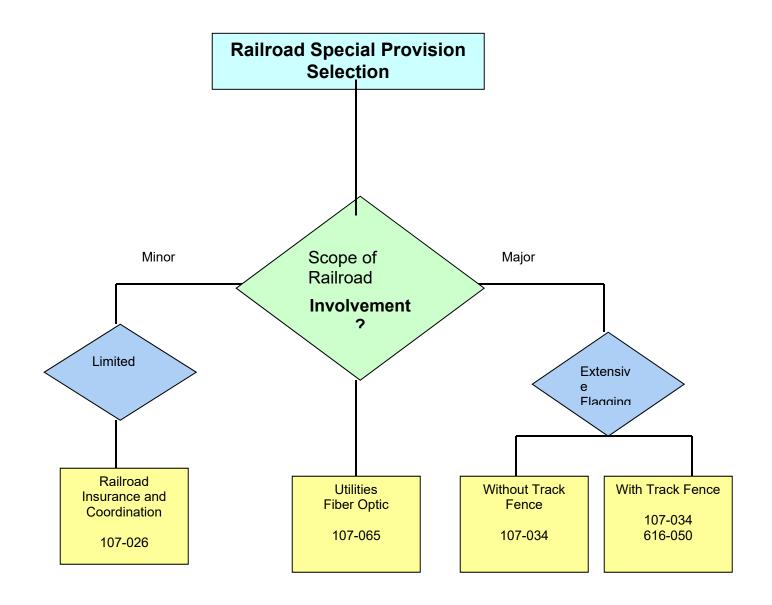
Special Provisions: Choosing the Appropriate Prosecution and Progress

W	orking Day Contra		Са	lendar Da	ay Contra	cts	
	Contract Timeframe			Contract Timeframe			
Use Timeframe to request the contractor's proposed timeframe for completing project.	Use Fall Suspension if it appears that it will be necessary to suspend operations during the winter months.	Use Expedited Schedule if the contractor should anticipate using an expedited schedule or additional workers to complete the work in accordance to the timeframe.	Use Timeframe to request the contractor's proposed that it will be necessarty to using an expedited timeframe for completing project. Use Fall Suspension if it appears contractor should using an expedited additional workers the work in accord		Use Expedited Schedule if the contractor should anticipate using an expedited schedule or additional workers to complete the work in accordance to the timeframe.		
Interio	n Linuidated Damage			Interio	m Liquidate	d Damagaa	(11.D-2)
Interim Liquidated Damages (ILDs) Use Working Day to assess ILDs based on work being completed within a specified number of working days.				Use Calendar Days to assess ILDs based on work being completed within a specified number of calendar days. Use Restrict Weather Delays Calendar Days for this case when restricting the use of weather delays. Use Restrict Weather Delays Fixed Date for the case when restricting the use of weather use of weather delays.			e to assess ILDs based on work npleted by a specific date. eather Delays Fixed Date for this when restricting the
Enha	anced Liquidated Dam	ages		Enh	anced Liqui	dated Dama	ages
Use Enhanced LD when the final liquidated damages are different than as provided in standard spec 108.11. Use Enhanced LD when the final liquidated damages are different than as provided in standard speceres 108.11.					than as provided in standard spec		
Environmental					Enviror	mental	
Use Fish when construction cannot occur within a particular time due to fish spawning.	are present and the structure	Use NLEB when the project has potential to impact the Northern Long-Eared Bat. Use one of the four specifications.		Use Fish when construction cannot occur within a particular time due to fish spawning.	are present an	tted to prevent	Use NLEB when the project has potential to impact the Northern Long-Eared Bat. Use one of the four specifications.

Special Provisions: Choosing the Appropriate Prosecution and Progress

Completion Date Contracts

completion Date contracts						
	Contract 1	Timeframe				
Use Timeframe to request the proposed timeframe for comp		anticipate us additional wo	ichedule if the contractor should sing an expedited schedule or orkers to complete the work in ance to the timeframe.			
Interir	n Liquidate	d Damages	(ILDs)			
Use Calendar Days to assess ILD: being completed within a speci calendar days.			e to assess ILDs based on work npleted by a specific date.			
Use Restrict Weather Delays Ca this case when restricting the o delays.		Use Restrict Weather Delays Fixed Date for this case when restricting the use of weather delays.				
		dated Dama	-			
Use Enhanced LD when the fin		nages are differen .08.11.	nt than as provided in standard			
	Enviror	mental				
Use Fish when construction cannot occur within a particular time due to fish spawning.	are present an needs to be ne	migratory birds d the structure tted to prevent esting.	Use NLEB when the project has potential to impact the Northern Long-Eared Bat. Use one of the four specifications.			



Fence Chain Link Vinyl Coated 6-Foot, Item SPV.0090.03.

A Description

This special provision describes furnishing and installing new vinyl clad chain link fencing in accordance to section 616 of the standard specifications, as directed by the engineer, and as hereinafter provided.

B Materials

The materials shall conform to subsection 616.2.3 for chain link fence except that the fencing, posts, and all other components shall be coated with a bonded polyvinyl chloride (PVC) coating and shall conform to AASHTO M181 Type IV, Class B. Also provide PVC-coated ties and tension bars that conform to AASHTO M181. Ensure that the color of all fencing components matches the color of the chain link fence fabric. The specified fence fabric color is "Industry Standard Black."

C Construction

Color match the fencing components with the railing framework materials before painting the framework. Install chain link fence fabric in accordance to subsection 616.3.3.3 and the plan details. Touch up painted framework surfaces marred by fencing installation.

D Measurement

The department will measure Fence Chain Link Vinyl Coated 6-Foot in length by the linear foot acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	Fence Chain Link Vinyl Coated 6-Foot	LF

Payment is full compensation for clearing and grubbing the fence line; for excavating; for setting posts, including placing concrete; for erecting and tensioning all fence components; for installing grounds; for removing and properly disposing of all debris, excess excavation and surplus materials; and for providing and driving longer posts into unstable soils at no additional cost to the department.



FDM 19-21-1 Overview

March 28, 2014

1.1 General QMP Information

The quality management program (QMP) provisions require the contractor to perform quality control testing during material production, material placement, and/or construction. The QMP provisions allow department product acceptance based on the contractor's quality control tests when verified with department testing. Each of the QMP provisions is a standard specification, standard special provision (STSP) or special provision (SPV). Each QMP provision is independent of the others. An individual contract can contain any combination of QMP provisions meeting the following individual QMP use criteria. Additional information on QMPs is available at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx

FDM 19-21-2 Use of Standard Specification and Incentives for QMPs

August 13, 2021

2.1 Standard Specification QMP Provisions

The following QMPs are included in WisDOT's Standard Specifications for Highway and Structure Construction.

2.1.1 Ride Quality

The ride quality specification is in <u>Standard Spec 740</u>. The specification applies to all riding surfaces and specifies where profiling is required and where incentive and disincentive provisions are enforced.

This specification may not be appropriate for some rehabilitation and maintenance projects. The designer should consider the expected life of the rehabilitation, safety, public perception, and potential extra cost of avoiding ride disincentives. Projects designed to be short-term fixes may not warrant the additional costs associated with including and administering this provision. Designers need to write a project special provision to remove the ride specification from projects or parts of projects deemed inappropriate.

There is no pay item for the testing required under this specification. Costs for furnishing and operating the profiler, documenting the profile results, and correcting the final pavement surface as required under this specification are incidental to the work. There is, however, a pay item for the IRI ride incentive payable under this specification (refer to FDM 19-21-2.2.1).

2.1.2 QMP HMA Mixture

This QMP provision is included in <u>Standard Spec 460</u>. This provision covers all HMA paving projects that use an HMA mixture specified in standard spec 460 and is included with local force account (LFA) and State Highway Rehabilitation/Maintenance (SHRM) projects. As stated in standard spec 460, the engineer may waive the QMP specification on projects with quantities of HMA pavement less than 500 tons, or for temporary pavements that will be placed and removed before the completion of the contract.

Bid items covered by standard spec 465 (HMA Surface bid items) do not use the QMP specification.

There is no pay item for the testing required under this provision. Costs for all QMP sampling, testing, and documentation required under this provision are incidental to the work. However, there is a payment item for incentive density HMA pavement (refer to <u>FDM 19-21-2.2.2</u>).

2.1.3 QMP Concrete

The QMPs are included in standard specification part 7 in the following four sections;

- 1. <u>Standard Spec 701</u> outlines the general requirements for all QMPs within part 7,
- 2. <u>Standard Spec 710</u> outlines the general requirements common to the three concrete related QMPs within part 7,
- 3. <u>Standard Spec 715</u> outlines specific QMP requirements for class 1 concrete used in pavements and structures, and
- 4. <u>Standard Spec 716</u> outlines specific QMP requirements for class II and III concrete used in ancillary applications.

Individual material sub-sections reference appropriate sections of part 7. If design requires the use of a special

provision the materials should reference appropriate section of part 7.

There is no pay item for the testing required under this provision. Costs for all QMP sampling, testing, and documentation required under standard spec part 7 are incidental to the work. However, there is a payment item for incentive strength concrete (refer to <u>FDM 19-21-2.2.3</u>).

2.1.4 QMP Base Aggregate

Use this QMP provision included in <u>Standard Spec 730</u>. This provision covers any Base Aggregate Open Graded or Base Aggregate Dense bid items. For dense graded, it applies to all grades except reclaimed asphaltic pavement. It applies to all open graded base aggregates. Is does not apply to Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

This provision requires contractor testing for small quantities. It is used whenever any one of the Base Aggregate Dense or Base Aggregate Open Graded bid items are in the contract regardless of the quantity.

There is no pay item for the testing required under this provision. Costs for all QMP sampling, testing, and documentation required under this provision are incidental to the work.

2.2 Incentive Items for Standard Specification QMPs

2.2.1 Payment for Incentive IRI Ride, Item 740.0440

Include the Incentive IRI Ride bid item on projects with greater than 1,500 feet of continuous concrete or asphalt pavement.

For the project letting, the designer predetermines the amount for this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying the lane mile of pavement covered under this provision by 2,000. The unit price will always be \$1.00.

2.2.2 Incentive Density HMA Pavement, Item 460.2000

The engineer will use this bid item to pay for density incentive earned by the contractor. Include the item for any quantity of HMA that is not covered under the PWL Spec. See <u>FDM 19-21-5.2.4</u>.

For the project letting, the designer predetermines the amount for this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying the total tons of HMA pavement mixes by 0.64 and rounding up to the next \$10.00. The unit price will always be \$1.00.

If the total quantity of HMA Pavement is greater than 10,000 tons, then QMP HMA Pavement Nuclear Density (STSP 460-020) should be included in the Special Provisions. See <u>FDM 19-21.5.2.3</u>.

2.2.3 Incentive Strength Concrete

Include the following items on projects requiring the use of class I concrete in pavements and/or concrete structures to pay for compressive strength incentives earned by the contractor.

1. Item 715.0502 - Incentive Strength Concrete Structures

For the project letting, the designer predetermines the amount of this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying 6.00 X the cubic yards of concrete masonry or use a minimum of 500. The unit price will always be \$1.00.

This incentive is applied to all Class I concrete masonry items defined in Standard Specification Sections 502 and 504.

2. Item 715.0603 - Incentive Strength Concrete Barrier

For the project letting, the designer predetermines the amount of this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying 0.50 X the estimated total linear feet of concrete barrier. The unit price will always be \$1.00.

This incentive is applied to all cast in place barrier items defined in Standard Specification Sections 603.

3. Item 715.0715 - Incentive Flexural Strength Concrete Pavement

For the project letting, the designer predetermines the amount of this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying 0.30 X the number of square yards of concrete pavement or use a minimum of 500. The unit price will always be \$1.00.

For a **contract** with 50,000 SY or more of concrete pavement, apply this incentive to all Concrete Pavement (inch) bid items in Standard Specification Section 415.

4. Item 715.0720 - Incentive Compressive Strength Concrete Pavement

For the project letting, the designer predetermines the amount of this bid item, thus all bidders will bid the same amount for the bid item. The designer should estimate the quantity by multiplying 0.30 X the number of square yards of concrete pavement or use a minimum of 500. The unit price will always be \$1.00.

For a **contract** with less than 50,000 SY of concrete pavement, apply this incentive to all Concrete Pavement (inch) bid items in Standard Specification Section 415.

FDM 19-21-5 Use of Standard Special Provision and Incentive Item QMPs February 15, 2023

5.1 Standard Special Provisions

Refer to <u>FDM 19-15</u> and the standard special provisions (STSP) web site for information on developing standard special provisions.

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx

5.2 Standard Special Provisions QMPs

5.2.1 QMP Base Aggregate Dense 1 1/4-Inch Compaction; Item 371.2000.S, STSP 370-010

Use this STSP only on projects that meet all three of the following criteria:

- Projects constructing HMA paved travel lanes
- Projects with an estimated quantity of 10,000 tons or more, of Base Aggregate Dense 1 1/4-Inch (Item 305.0120)
- Projects that include subgrade improvement or QMP Subgrade, or both.

This standard special provision shall be used for mainline HMA pavements and not for frontage and side roads. Compaction testing is limited to the base aggregate 1 1/4-Inch placed above at least 16 inches of subgrade improvement, 12 inches of subgrade improvement and geogrid or QMP subgrade provisions, between shoulder hinge points and lower than mainline pavement. Department staff will measure and pay for acceptably completed lots as defined by the provision.

For the project letting, the designer will include a pay item and quantity for QMP Base Aggregate Dense 1 1/4-Inch Compaction equal to the total number of lots. Multiple lots may exist for each base aggregate dense layer. Layers are compacted with lifts a minimum of two inches thick to a maximum of 8 inches thick. Each lift will be measured as a separate lot for a given lot length and width. Expected number of compaction layers corresponding to the total base layer thickness are shown in the table below.

Total 1 ¼" base aggregate layer thickness	Expected number of compaction layers	Thickness of each compacted layer				
18 inches	3 layers	6 inches				
14 inches	2 layers	7 inches				
10 inches	2 layers	5 inches				
6 inches [*]	1 layer	6 inches				

Table 5.1 Compaction Layers

*Total 1 ¼" base aggregate layer thicknesses less than eight inches will be compacted in one layer.

For example, a project's total length is 4200 feet, pavement width is 30 feet, and total 1 $\frac{1}{4}$ " base aggregate layer thickness is 12 inches. To determine the number of lots, divide the project into 1500- foot segments. Partial lots greater than or equal to 750 feet are standalone lots. In this example, there are two 1500-foot segments and one 1200-foot segment. Per the provision, each lot width cannot exceed 18 feet and should be divided into 2 lot widths. Finally, the number of lots must be multiplied by the total number of compacted layers. A total 1 $\frac{1}{4}$ " base aggregate layer thickness of 12 inches will likely be compacted in two layers, which doubles the total number of lots. The total number of estimated lots is therefore 3 length segments x 2 pavement widths x 2 base compaction layers equaling 12 total lots for the 4200-foot project length.

The designer will also include a pay item and quantity of water (Item 624.0100 Water; MGal). Application rates may vary widely but may be estimated at a rate of approximately 10 - 20 gallons/ton of Base Aggregate Dense 1 1/4-Inch.

5.2.2 QMP Mill and Relay Compaction, Item 374.1010.S; QMP Pulverize and Relay Compaction; Item 374.1020.S; STSP 370-020

Use this STSP only on projects with Pulverize and Relay (bid item 325.0100) or Mill and Relay (bid item 330.0100) pavement quantity of 40,000 SY (square yards) or more.

This standard special provision limits compaction testing to the re-laid material placed beneath the mainline travel way and any shoulders immediately adjacent a mainline travel way. Due to measurement difficulties during construction, the special provision pay quantity for compaction testing is the square yard (SY) of all "Mill and Relay" or "Pulverize and Relay" completed on the project, regardless of the operation's location, or number of lifts of construction; i.e. there will not be additional compensation or quantities for having to test multiple lifts.

For the project letting, the designer will include a pay item and quantity for QMP Mill/Pulverize and Relay Compaction equal to the total contract quantity of Pulverize and Relay or Mill and Relay, or both. The designer will also include a pay item and quantity of water (Item 624.0100 Water; MGal). Application rates may vary widely but may be estimated at a rate of approximately 3 - 6 gallons/SY of 6" lift of Mill and Relay or Pulverize and Relay.

5.2.3 QMP HMA Pavement Nuclear Density; STSP 460-020

Use this STSP on project quantities of 10,000 tons or more of total HMA pavements that are not part of the HMA Percent Within Limits (PWL) quantities. Include the item 460.2000 estimated according to <u>FDM 19-21 2.2.2</u>. The PWL Mixture Use Table in the miscellaneous quantities as shown in Table 5.3 needs to clearly state which density acceptance applies to each location.

Use on quantities less than 10,000 tons should be reviewed with regional material personnel.

There is no pay item for the testing required under this provision. Costs for all QMP sampling, testing, and documentation required under this provision are incidental to the work. There is, however, a pay item for the density incentive payable under <u>Standard Spec 460</u>.

5.2.4 HMA Pavement Percent Within Limits (PWL) Test Strip Volumetrics, Item 460.0105.S; HMA Percent Within Limits (PWL) Test Strip Density, Item 460.0110.S (STSP 460-040) HMA Pavement Percent Within Limits (PWL) QMP (STSP 460-050) Appendix A (STSP 460-055)

5.2.4.1 General Information

Use this special provision on all HMA contracts that have at least 10,000 tons of a single mix type. If the mixture that is used on the upper layer does not qualify for PWL, then PWL should not be on the contract. PWL should not be used on the lower layer if not also on the upper layer, unless the upper layer is an SMA. The tonnage includes shoulder material of the same mix type. The 10,000-ton minimum was established so that the contracts include enough material to construct the 750-ton required test strip and have sufficient data for statistical analyses (minimum of 3 QV production tests). The table below shows how the minimum 3 QV tests are acquired with the minimum of 10,000 tons:

Number of Production Tests		Tonnage	Lot/Sublot
QC	QV	Ĩ	
		750	Test Strip
5	1	3,750	Lot 1
5	1	3,750	Lot 2
1		750	Lot 3 Sublot 1
1	1*	750	Lot 3 Sublot 2
1		250	Lot 3 Sublot 3
13	3	10,000	Total

Table 5.2 Volumetric Testing

*Only one randomly selected sublot will have a QV test.

This special provision replaces certain portions of <u>Standard Spec 460</u>. There is no pay item for testing under this special provision. Costs for all QMP sampling, testing, and documentation under this special provision are incidental to the work. However, there are pay items for density incentives and air void incentives. Include the following three bid items on all HMA PWL contracts to pay for density and air void incentives.

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL
460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL

For the project letting, the designer predetermines the amount for these bid items, so all bidders bid the same amount. The designer should estimate the bid amount at \$1.00 per ton of HMA pavement eligible for items 460.2005 and 460.2010. For LJD item 460.2007, estimate \$0.50 per foot of the centerline length. The final estimate should be rounded up to the next \$10.00. Typically, the quantity for air voids and density incentive will not be the same.

The HMA PWL special provision limits density incentives to mainline tonnage only. STSP 460-020 QMP HMA Pavement Nuclear Density should not be used on PWL projects unless it is clearly stated in the Miscellaneous Quantities that it applies to pay items other than those to which PWL applies.

All PWL contracts require the construction of at least one test strip. Therefore, include STSP 460-040 for HMA Percent Within Limits (PWL) Test Strip Volumetrics and Density on all contracts that include STSP 460-050 HMA Pavement PWL QMP. Also, include the following two bid items to pay for the construction and associated sampling and testing costs for the volumetrics and density test strips.

ITEM NUMBER	DESCRIPTION	<u>UNIT</u>
460.0105.S	HMA Pavement PWL Test Strip Volumetrics	EACH
460.0110.S	HMA Pavement PWL Test Strip Density	EACH

The test strip HMA tonnage is paid for using the same bid items as the mainline, including the density and air void incentives. For the project letting, the designer should estimate the cost of the test strip items using typical estimating tools such as bid express, average unit costs, etc.

5.2.4.2 Incentive Density PWL HMA Pavement, Item 460.2005

Although shoulder tonnage is included in the mixture quantity to determine PWL eligibility, only mainline tonnage is eligible for PWL density incentive. Full-width passing lanes, turn lanes, or auxiliary lanes greater than 1500 lane feet may also be designated for the PWL density incentive as approved by the engineer. Density for shoulders, intersections, patching, widening, etc. is accepted by department testing.

5.2.4.3 Incentive Air Voids HMA Pavement, Item 460.2010

All mixture tonnage (mainline or otherwise) of the same mix type as the PWL mixture meeting the minimum PWL tonnage requirements is eligible for PWL air void incentives. If minor patching is needed prior to mainline paving, it is recommended that the patching be paid for under a different bid item than that of the mainline.

5.2.4.4 HMA Pavement PWL QMP Mixture Acceptance Table

The plans must clearly state how all HMA material on PWL projects will be accepted. It is recommended that a table, like the example in Table 5.3 (HMA PWL Mixture Acceptance), be included in Miscellaneous Quantities to clearly identify acceptance criteria for all HMA mix/tonnage on the project.

Table 5.3 HMA PWL Mixture Acceptance

Location	Station	Mixture	Underlying	Bid Item	Tons	Thickness	Quality Management Prog	ram to be used for:
		Use:	Surface				Mixture Acceptance	Density Acceptance
12 foot	1+00 to	Upper	3 MT 58-34H	4 MT 58-	12,000	1 ¾ "	PWL Incentive Air Voids	Incentive Density PWL HMA
Driving Lane	20+39	Layer		34H			HMA Pavement 460.2010	Pavement 460.2005
12 foot	1+00 to	Lower	Milled Existing	3 MT 58-	15,400	2 ¾"	PWL Incentive Air Voids	Incentive Density PWL HMA
Driving Lane	20+39	Layer	HMA Surface	34H			HMA Pavement 460.2010	Pavement 460.2005
3 foot	1+00 to	Upper	3 MT 58-34H	4 MT 58-	2,450	1 ¾ "	PWL Incentive Air Voids	Acceptance testing by the
shoulder	20+39	Layer		34H			HMA Pavement 460.2010	department; Not eligible for incentive or disincentive
3 foot	1+00 to	Lower	Milled Existing	3 MT 58-	3,850	2 ¾"	PWL Incentive Air Voids	Acceptance testing by the
shoulder	20+39	Layer	HMA Surface	34H			HMA Pavement 460.2010	department; Not eligible for incentive or disincentive
Various		Culvert patches	Base Aggregate	Asphaltic Surface	550	6" total	QMP as per SS 465.	Acceptance by ordinary compaction
12 foot	20+39	Upper	3 MT 58-34H	4 MT 58-	1000	1 ¾ "	QMP as per SS 460.	Incentive Density HMA
Driving Lane	to 23+00	Layer		34H				Pavement 460.2000
12 foot	20+39	Lower	Existing Concrete	3 MT 58-	1,570	2 3⁄4″	QMP as per SS 460.	Incentive Density HMA
Driving Lane	to 23+00	Layer	Pavement	34H				Pavement 460.2000
10 foot	20+39	Upper	3 MT 58-34H	4 MT 58-	830	1 ¾ "	QMP as per SS 460.	Incentive Density HMA
shoulder	to 23+00	Layer		34H				Pavement 460.2000
10 foot	20+39	Lower	Existing Concrete	3 MT 58-	1,310	2 ¾"	QMP as per SS 460.	Incentive Density HMA
shoulder	to 23+00	Layer	Pavement	34H				Pavement 460.2000

PWL Mixture Use Table

5.2.4.5 HMA Pavement Percent Within Limits (PWL) Test Strips; STSP 460-040

All contracts with the HMA Pavement Percent Within Limits QMP special provision will require at least one volumetrics test strip (item 460.0105.S) and one density test strip (item 460.0110.S). The actual number of test strips required depends on the contract specifics. Typically, for the lower layer of HMA mainline, the volumetrics and density test strip will be the same and tested simultaneously. However, some circumstances may require the volumetrics and density test strips to be separated. For subsequent layers of the same mix type, additional volumetrics test strips aren't necessary; therefore, the number of density test strips will not necessarily equal the number of volumetrics test strips.

5.2.4.5.1 HMA Pavement PWL Test Strip Volumetrics, Item 460.0105.S

The purpose of a test strip for volumetrics is to ensure the mix produced on the first day is within specifications and to ensure that contractor and department laboratory test results correlate before going into full production. A volumetric test strip is required for each mix type meeting the PWL tonnage criteria. For example, a 2-layer pavement with the same mix type for both layers would require only one volumetric test strip on the lower layer.

5.2.4.5.2 HMA Pavement PWL Test Strip Density, Item 460.0105.S

The purpose of a test strip for density is to ensure the contractor can achieve the target density before going into full production. In addition, each density gauge to be used for acceptance testing on the project must be correlated with test strip cores and assigned a specific offset. The offsets will be applied to the density readings for the remainder of the contract. An offset is specific to a particular gauge, mix design, and underlying material; therefore, a density test strip is required when there is a change in HMA material or underlying layer.

The area that influences nuclear density gauge readings is limited to approximately four inches in depth from the surface being tested. Therefore, underlying material more than four inches below the surface does not influence the readings.

5.2.4.6 HMA Pavement Longitudinal Joint Density, Item 460.0105.S (STSP 460-075)

All Contracts with the HMA Pavement Percent Within Limits QMP special provision must also have the HMA Pavement Longitudinal Joint Density special provision in the contract. The LJD STSP can only be used in conjunction with the PWL contracts. This special provision requires the testing of the longitudinal joint as specified in the provision. When using this provision, designers should not specify joint heaters, echelon paving, wedge joint removal, or other specified joint treatment. The contractor is responsible for achieving the adequate compaction required by the STSP. If echelon paving is required by the contract, the contractor is not eligible to

earn incentives under this special provision.

5.2.4.7 HMA Pavement PWL Test Strip QMP Examples

Examples are listed below to help clarify when a density test strip is needed.

- Example 1: A two-layer contract with the same mix type in both layers. This requires a minimum of 2 density test strips and 1 volumetric test strip.
- Example 2: A single layer contract over aggregate base for one portion of the project and over milled HMA for another portion of the project. This requires 2 density test strips (one over aggregate base, one over milled HMA) and 1 volumetric test strip.
- Example 3: A contract where the layer thickness changes within a segment of the same mix type. This may require additional density test strip(s). Contact BTS HMA Unit with project specifics for further guidance.



FDM 19-22-1 Addenda

November 15, 2022

1.1 Introduction

During the PS&E Review Process, the BPD finalizes the highway work proposal and plans for every project using the information that the region provided them in the PS&E submittal. Once the plans, estimate, and specifications are finalized, an addendum is required to make any changes to them prior to the bid letting. Addenda are prepared when they are necessary, and are normally issued after the project has been advertised for bid letting. An addendum should not and will not be allowed to act as a plan completion tool or as a clean-up mechanism for poor quality work.

The regions are responsible for submitting the Addendum Form, Addendum Development Form, and plan sheets seeking permission from BPD to prepare an addendum for a project, and for preparing the addendum. Consultant and BOS staff may aid in developing the addendum. BPD is responsible for approving addenda requests, ensuring that addenda have been properly prepared by the region, making all necessary changes to the Schedule of Items, issuing the addenda, submitting final addenda of projects with federal oversight to FHWA for approval, and for posting addenda to the department's HCCI extranet site at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/default.aspx

and Bid Express if needed.

Per the FHWA/WisDOT Stewardship & Oversight Agreement, Projects of Corporate Interest (PoCI's), Projects of Division Interest (PoDI's), and select projects on the NHS system will require prior authorization from FHWA post the addenda. All projects that fall in the above categories should make every effort to submit their addenda prior to two Thursdays before the letting (On-Time). FHWA must approve the addendum prior to it being posted.

Changes to the Utilities article must be approved by the Bureau's Utilities Unit prior to posting. Changes to the Railroad articles must be approved by Rails and Harbors prior to posting.

Addenda may be warranted due to errors, omissions, or confusing information identified in the plans and proposal, or changed conditions. If the department does not issue an addendum in such cases, and instead directs potential bidders to bid the proposal as they see it, the bidding process for the contract may be jeopardized and may result in the department rejecting all bids and re-letting the proposal at a later date. In the worst cases, the proposal may be challenged in court.

The following types of addenda are possible:

- Special provision changes
- Schedule of Items (SOI) changes
- Plan sheet changes
- Contract Completion Time changes
- Proposal or other insert changes and
- Any combination of the above

1.2 Determining the Need for an Addendum

Follow the process shown in <u>Attachment 1.1</u> to determine if an addendum is required. Once a problem with a proposal is identified, answer these questions to determine if an addendum is needed.

1. Would the contractor have a problem preparing the bid?

An addendum may be appropriate if the plan contains incorrect or missing bid items, or bid items that conflict with each other, and the contractor may not be able to prepare a responsible bid with the information provided.

2. Would there be problems with awarding the bid?

An addendum may be appropriate if the problem would prevent the department from awarding the contract (for example, if there are missing bid items and, as a result, the bid is irregular and would be rejected).

3. Would there be difficulty in preparing a change order?

An addendum may be appropriate if the department would have difficulty preparing a change order. Difficulty in preparing a change order could be defined in several ways. Cost, ability to negotiate and meeting department or other commitments should be considered.

4. Is there time to issue an addendum?

Timing is one of the most critical elements in determining whether an addendum should be issued. If there is inadequate time to prepare the addendum, or for the contractors to consider it in their bid preparation, an addendum cannot be issued. "Adequate time" is defined as delivery of the addendum to the BPD no later than 5:00 PM the Wednesday. Any addendum not posted prior to 5:00 the Thursday prior to the bid letting will become an Emergency Addendum. If this criterion is not met, an addendum may not be issued. If an addendum is necessary after this time, contact BPD to discuss the issue. In this case either a contract change order may be needed or, in the worst case, the proposal will be withdrawn from the letting.

Table 1.1 Addendum Delivery Timeline

Timing of Addendum	On-Time	Late	Emergency
Delivery of addenda to BPD	8 am, two- Thursdays before the letting	Between 8 am two- Thursdays before and 5 pm the Wednesday before the letting	After 5 pm the Wednesday before the letting <u>and</u> addenda not posted prior to 5pm on Thursday prior to let

Table 1.1 (above) describes how the addenda are broken down as On-Time, Late, or Emergency which is used as part of the performance measures for addenda.

There will be times where an addendum can be justified and issued between 5:00 pm the Thursday before the letting and 4:00 PM the day prior to the bid letting. This would constitute an "Emergency" Addendum. BPD will make the final determination whether an "Emergency" Addendum should be issued. An "Emergency" Addendum will be posted to the Departments HCCI website at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/default.aspx

and Bid Express if necessary. The addendum will be also emailed directly to the Eligible Bidders List for that proposal. The eligible bidder(s) must reply to the email that they have received the addendum. If eligible bidders do not respond, the project will be withdrawn from the letting.

If the answer is yes to at least one of the first three justification questions, proceed with the preparation of an addendum. If the answer to all of these questions is no, there may be unique times preparing an addendum would be considered in the department's best interest. Consult with Proposal Development Specialist (608) 266-3985 and/or BPD Chief (608) 266-3721 to determine whether an addendum should be prepared.

Complete and forward the Addendum Development Form shown in <u>Attachment 1.2</u> and the Addendum Form shown in <u>Attachment 1.4</u> to the Proposal Development Specialist, utilizing the Proposal Management Section's mailbox (Mailbox - DOT DTSD BPD Proposal Management Section or DOTDTSDBPDProposalManagementSection@dot.wi.gov). The region may follow up its submittal with a phone

call to the Proposal Development Specialist 608-266-3985.

1.3 Completing the Addendum Development Form

The Addendum Development Form is required for all addenda submitted to the Proposal Management Section. The only person using this form is the Proposal Development Specialist to not only know the reason for the addendum, but it helps understand any changes to the bid item quantities. It can be broken down by project ID (if multiple projects are tied to the proposal), it shows which category the item is in, the existing quantity prior to addendum, and new quantity.

The Addendum Development Form instructions for each section are below:

1.3.1 Project Information

ADDENDUM DEVELOPMENT FORM

Letting Date: Proposal Number: Proposed Addendum No.: Project ID: Federal ID: Project Description:

> Contact Person: Phone Number: Date:

• Enter the project information. It is important that the contact person is the individual the Proposal Development Specialist can contact if they have questions.

Example:

		ADDENDUM DEVE	ELOPMENT FORM	
Proposal N Proposed Addendo Pro	um No.: bject ID: leral ID:	July 12, 2022 20220712001 01 3080-01-40 N/A Madison – Cambridg CTH AB Overpass USH 12 Dane County	3080-01-75 WISC 2022450 e Madison – Cambridge CTH AB Overpass USH 12 Dane County	3080-01-76 WISC 2022451 Madison - Cambridge CTH AB Interchange USH 12 Dane County
Contact Phone N		John Doe 608-555-6789 June 28, 2022		
ogram Type:				
PROGRAM TYPE (CHEC	K ONE):			
Local (205)	🗌 L	ocal (206)	Local (211)	Local (290)
Major (302)	🔲 s	tate (303)	SE (301ZO)	Maint (305)
		lale (505)	3E (30120)	
ITSTBR (304)		ther	_ SE (30120)	
		ther	SE (30120)	
ITSTBR (304)		ther	SE (30120)	
TISTBR (304)	Program	ther and the set of t	SE (30120)	
ITSTBR (304) It is important that the le:	Program	ther and the set of t	 SE (30120) Local (211) 	Local (290)
TSTBR (304) It is important that the le:	Program	ther m Type is listed.		

1.3.3 Timing and Justification of Addendum:

TIME FOR ADDENDUM

Is there sufficient time to issue an addendum?

🔲 Yes 🛛 🔲 No

Note: Time defined as delivery of the addenda and the plans to the BPD's Proposal Management Section (refer to table below).

Timing of Addendum	On-Time	Late	Emergency
Delivery of addenda to BPD	8 am, two- Thursdays before the letting	Between 8 am two-Thursdays before and 5 pm the Wednesday prior to the letting	After 5 pm the Wednesday before the letting <u>and</u> addenda not posted prior to 5pm on Thursday prior to let

Emergency Addenda, if processed, must be emailed to all eligible bidders and confirmation of receipt by the contractors must be received by BPD. It will be BPD's decision to process the addendum.

JUSTIFICATION CRITERIA FOR ADDENDUM DEVELOPMENT

Is addenda needed:

Would the contractor have problems preparing the bid? Would there be problems with awarding the bid? Would there be difficulty in preparing a change order?

Yes	No
Yes	No
Yes	No

Explain (address the consequences of not issuing the addenda measured in terms of cost, time or meeting project commitments):

 Be sure to pay attention to the timing deadlines and explain below what the consequences could be if the addendum is not issued.

Example:

TIME FOR ADDENDUM

Is there sufficient time to issue an addendum?

🛛 Yes 🛛 🔲 No

Note: Time defined as delivery of the addenda and the plans to the BPD's Proposal Management Section (refer to table below).

Timing of Addendum	On-Time	Late	Emergency
Delivery of addenda to BPD	8 am, two- Thursdays before the letting	Between 8 am two-Thursdays before and 5 pm the Wednesday prior to the letting	After 5 pm the Wednesday before the letting <u>and</u> addenda not posted prior to 5pm on Thursday prior to let

Emergency Addenda, if processed, must be emailed to all eligible bidders and confirmation of receipt by the contractors must be received by BPD. It will be BPD's decision to process the addendum.

JUSTIFICATION CRITERIA FOR ADDENDUM DEVELOPMENT

ls addenda needed:

Would	the contractor have problems preparing the bid?
Would	there be problems with awarding the bid?
Would	there be difficulty in preparing a change order?

Yes	No
Yes	No
Yes	No

Explain (address the consequences of not issuing the addenda measured in terms of cost, time or meeting project commitments): If the addendum is not issued, a change order will be required for the Marking Diagonal Epoxy 12-inch, Culvert Pipes, Storm Sewer Pipes, and Apron Endwalls.

1.3.4 Addendum Information:
WHO INITIATED THE ADDENDUM? (CHECK ALL THAT APPLY):
Region Consultant Central Office Contractor
Please explain:
WHAT IS THE PRIMARY REASON(S) FOR THE ADDENDUM? (CHECK ALL THAT APPLY):
Bid Items/Quantities (check all that apply)
Revised Bid Item(s) Added Bid Item(s) Deleted Bid Item(s) Other
If any checked, please explain:
Special Provisions (check all that apply)
Revised Article(s) Added Article(s) Deleted Article(s) Other
If any checked, please explain:
Plan Sheets (check all that apply)
Revised Plan Sheet(s) Added Plan Sheet(s) Deleted Plan Sheet(s)
Structure Plan Revision(s) Other
If any checked, please explain:
Design Related (check all that apply)
Standards changed Change in Project Scope Other
If any checked, please explain:
 This information is entered into a database and is used for the Design Quality Index.
Example:
WHO INITIATED THE ADDENDUM? (CHECK ALL THAT APPLY):
Region Consultant Central Office Contractor
Please explain: Consultant found that the marking diagonal epoxy 12-inch was missing on one of the marking
sheets. The Contractor noted that confusion was created when determining which storm sewer structure items were covered by the general provisions for the City of Madison storm sewer. The Contractor also noted the use
of alternate materials for specific sizes of culvert pipes, storm sever pipes, and apron endwalls.
WHAT IS THE PRIMARY REASON(S) FOR THE ADDENDUM? (CHECK ALL THAT APPLY):
Bid Items/Quantities (check all that apply)
Revised Bid Item(s) Added Bid Item(s) Deleted Bid Item(s) Other
If any checked, please explain: The quantity for bid item Marking Diagonal Epoxy 12-inch is incorrect and the contractor's bids would not reflect the actual work required. The bid items for select culvert pipes, storm sewer pipes, and apron endwalls were incorrect and would result with inaccurate bids from contractors. The removing fence items were incorrect as a portion of the removals will be by others.
Special Provisions (check all that apply)
Revised Article(s) Added Article(s) Deleted Article(s) Other
If any checked, please explain:

Spe cast Spe Pon	ecial Provision Article 36 was deleted as the item will be removed by others. ecial Provision Article 49 is modified to reduce inconsistency in the expectations from the City of Madison and t-in-place structures. ecial Provision Article 80 was deleted and content split into Articles 133 and 134. Outlet control structures for ids A and B are now called out as CIP (cast-in-place) with reference to the general provisions for City of dison storm sewer.
	Plan Sheets (check all that apply)
	Revised Plan Sheet(s) Added Plan Sheet(s) Deleted Plan Sheet(s)
	Structure Plan Revisions 🛛 Other
Infiel was pipe allow Millp endv and shee revis displ	by checked, please explain: Plan sheet 34 was revised to allow for a 2% slope on the top of the Millpond and Optional Waste Site. Plan sheets 42-44 were revised to show the revised pay item callouts. Plan sheet 80 revised to show work by others. Plan sheets 190-192, 196, 197 were revised to change the storm sewer ematerial from reinforced concrete to Class III-A. Additionally, the apron endwall bid items were changed to w for multiple material options. Plan sheet 307 was revised to include marking diagonal epoxy 12-inch along bond Road. Miscellaneous quantity sheet 474 has revised bid items for specific culvert pipes and apron walls. Miscellaneous quantity sheets 477-479, 481, 509 has revised bid items for specific storm sewer pipes apron endwalls. Miscellaneous quantity sheet 493 has revised removing fence table. Miscellaneous quantity et 515 has revised item names in the Pond A and B drainage tables. Miscellaneous quantity sheet 548 has a sed quantity for the diagonal marking item. Plan sheets 585 and 588 were revised to update a note laying the culvert pipe material. Cross section sheets 1323-1327 were revised with the updated elevations he top of the optional waste site.
	Design Related (check all that apply)
	Standards changed Change in Project Scope Other
lf an	y checked, please explain:

1.3.5 Addendum

Instructions: Special

Provisions: the article numbers in the appropriate boxes.

Schedule of Items:

Schedule of Items:

	Revised Bid Item Quantities - ID					
Category	Bid Item	Item Description	Unit	Current Quantity	Revised Quantity	

	Added Bid Item Quantities - ID					
Category	Bid Item	Item Description	Unit	Quantity	Unit Price	

	Deleted Bid Item Quantities - ID				
Category	Bid Item	Item Description	Unit	Current Quantity	

• This is used to update AWP. It is a breakdown of what category, current quantity in that category and what the new quantity will be. For multiple Project ID's, copy the tables and add the project IDs to the Revised, Added, and Deleted rows. This makes the addendum much quicker to process.

Example:

<u>Sch</u>	edule of Items:				
		Revised Bid Item Quantities – ID 3080-01-75			
Category	Bid Item	Item Description	Unit	Current Quantity	Revised Quantity
0010	521.1018	Apron Endwalls for Culvert Pipe Steel 18-inch	Each	8	4
0010	522.0124	Culvert Pipe Reinforced Concrete Class III 24-inch	LF	174	0
0010	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24- inch	LF	554	97
0010	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30- inch	LF	124	0
		Revised Bid Item Quantities – ID 3080-01-76			
Catagory	Bid Item			Current	Revised
Category	Bid Item	Item Description	Unit	Quantity	Quantity
0010	204.0170	Removing Fence	LF	15,429	13,975
0020	646.7120	Marking Diagonal Epoxy 12-inch	LF	131	271
		Added Bid Item Quantities - ID 3080-01-75			
Category	Bid Item	Item Description	Unit	Quantity	Unit Price
0010	520.1012	Apron Endwalls for Culvert Pipe 12-inch	Each	1	\$700
0010	520.1018	Apron Endwalls for Culvert Pipe 18-inch	Each	10	\$600
0010	520.1024	Apron Endwalls for Culvert Pipe 24-inch	Each	4	\$700
		Added Bid Item Quantities - ID 3080-01-76			
Category	Bid Item	Item Description	Unit	Quantity	Unit Price
0010	SPV.0060.67	CIP Outlet Control Structure Pond A	Each	1	\$8,000
0010	SPV.0060.68	CIP Outlet Control Structure Pond B	Each	1	\$8,000
		Deleted Bid Item Quantities – ID 3080-01-75			
Category	Bid Item	Item Description		Unit	Current Quantity
0010	521.3118	Culvert Pipe Corrugated Steel 18-inch		LF	82
0010	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-inc	h	LF	124

Deleted Bid Item Quantities – ID 3080-01-76				
Category	Bid Item	Item Description	Unit	Current Quantity
0010	204. <u>9060 S_</u> 01	Removing Chain Link Gate	Each	1
0010	521.3118	Culvert Pipe Corrugated Steel 18-inch	LF	92
0010	SPV.0060.10	Outlet Control Structure Pond A	Each	1
0010	SPV.0060.11	Outlet Control Structure Pond B	Each	1

1.3.6 Plan Sheets:

• Add the plan sheet numbers in the appropriate boxes.

1.3.7 Structure information:

DOES THIS ADDENDUM CONTAIN CHANGES TO:					
Structure Plans?	Yes	🔲 No			
If yes, list Structure Numbers:					
Special Provision revisions that affect structures?	Yes	No No			

If you answered "Yes" to either questions 1 or 2, you must E-submit the relevant, revised component of the original E-submit below. In the "Comments" section of the E-submit, place a brief description of the addendum.

<u>Plan Sheets</u>: Do not resubmit the entire plan set. Only re-submit the changed plan sheets. The changes to the plan sheet shall be in red font and outlined by red clouding. The revision box shall also be filled in with red font. Each sheet shall be PE stamped, signed, and dated on the date of submittal.
 <u>Structure Design Computations</u>: The entire computation package with the revised computations shall be resubmitted. Do not submit just the portion of the computation package with the revised quantities shall be resubmitted. Do not submit just the quantity calculation package with the revised quantities shall be resubmitted. Do not submit just the quantity revision that changed from the original submittal.
 <u>Structure Special Provisions</u>: The official special provisions need to be submitted directly to BPD. Resubmit the special provision document for all special provisions pertaining to the structure to the Bureau of Structures (BOS). This document is for informational purposes only for the BOS.

If you have any other questions, please contact Steve Revello or Najoua Ksontini as a backup.

Email:Steven.Revello@dot.wi.govPhone: (608) 266-5095Email:Najoua.Ksontini@dot.wi.govPhone: (608) 266-2657

Just check the boxes and read the instructions how to submit the structure plans. BOS reaches out to
me and sends me a link to the approved structure sheets.

1.3.8 FHWA and Conclusion

FHWA

Is this project subject to federal oversight for design?

🗌 Yes 📃 No

If yes, the addendum will need approval from FHWA prior to posting. Please communicate with the FHWA Oversight Engineer prior to submitting the addenda to Proposal Management, so FHWA is aware that an addendum is going to be submitted for approval. After the addenda is processed, Proposal Management will coordinate with the FHWA Oversight Engineer for approval of the addendum. After approval, the addendum will be posted on the HCCI site.

Conclusion

No. of Bid Items Changed	Total no. of Bid Items in Plans	
No. of Plan Sheets Changed	Total no. of Plan Sheets in Plans	

Attach this completed form along with the completed addendum form and send to: Mailbox: - DOT DTSD BPD Proposal Management Section or email: <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u>

Example:

FHWA
Is this project subject to federal oversight for design?
If yes, the addendum will need approval from FHWA prior to posting. Please communicate with the FHWA Oversight Engineer prior to submitting the addenda to Proposal Management, so FHWA is aware that an addendum is going to be submitted for approval. After the addenda is processed, Proposal Management will coordinate with the FHWA Oversight Engineer for approval of the addendum. After approval, the addendum will be posted on the HCCI site.
No. of Bid Items Changed 15 Total no. of Bid Items in Plans 447
No. of Plan Sheets Changed 7 Total no. of Plan Sheets in Plans 1328
Attach this completed form along with the completed addendum form and send to: Mailbox: - DOT DTSD BPD Proposal Management Section or email: <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u>

1.4 Preparing the Addendum

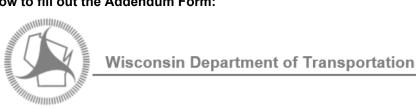
The addendum form is required for all addenda. This is the form the contractors are going to see and use to prepare their bid.

There are three parts to an addendum.

- Addendum Form required for all addenda
- Plan Sheets required if plan changes are required
- SOI (Schedule of Items) Addendum Development Specialist submit this when there are changes to quantities. The current SOI prior to addendum is at the end of the proposal.

1.4.1 How to fill out the Addendum Form:

Month DD, YYYY



Division of Transportation Systems Development Bureau of Project Development 4822 Madison Yards Way, 4th Floor South Madison, WI 53705

Telephone: (608) 266-1631 Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #xx:Project ID, Federal IDProject ID, Federal IDProject TitleProject TitleProject LimitProject LimitRouteRouteCountyCounty

Letting of Letting Date

This is Addendum No. xx, which provides for the following:

• Fill in the Project ID(s) and project information as shown on the title sheet of the plans or the proposal.

Example:

June 28, 2022		Madison, WI 53705 Telephone: (608) 266-1631 Facsimile (FAX): (608) 266-8459
NOTICE TO ALL	CONTRACTORS:	
Proposal #01:	3080-01-40 Madison - Cambridge CTH AB Overpass USH 12 Dane County	3080-01-75, WISC 2022450 Madison - Cambridge CTH AB Overpass USH 12 Dane County
	3080-01-76, WISC 2022451 Madison - Cambridge CTH AB Interchange USH 12 Dane County	
Letting of July 1	2, 2022	
This is Addendum N	o. 01, which provides for the following:	

1.4.2 Special Provisions:

Special Provisions:

	Revised Special Provisions
Article No.	Description

	Added Special Provisions
Article No.	Description

	Deleted Special Provisions					
Article No.	Description					

- If you are revising the title of an article, you need to delete the current article and add a new article with the new title.
- When adding an article, it should be at the end of the article numbers.

Example:

	Revised Special Provisions						
Article No.	Description						
49	General Provisions for City of Madison Storm Sewer.						
	Added Special Provisions						
Article No.	Description						
133	CIP Outlet Control Structure Pond A, Item SPV.0060.67; CIP Outlet Control Structure Pond B Item SPV.0060.68.						
134	Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item SPV.0060.14.						
	Deleted Special Provisions						
Article No.	Description						
36	Removing Chain Link Gate, Item 204.9060 S 01						
80	Outlet Control Structure Pond A, Item SPV.0060.10; Outlet Control Structure Pond B, Item SPV.0060.11; Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item SPV.0060.14.						

1.4.3 Schedule of Items:

Schedule of Items:

Revised Bid Item Quantities								
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum			

	Added Bid Item 0	Quantities	6	_	
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
			0		
			0		
			0		
			0		
			0		

	Deleted Bid Item Quantities Item Item Description Proposal Unit Proposal Total Prior to Addendum Proposal Quantity Change (-) Proposal Addendum Item Item Description Item Description				
Bid Item	Item Description	Unit	Total Prior to	Quantity	Total After
					0
					0
					0
					0
					0

• If the proposal has multiple projects tied, use the proposal total prior to addendum. For the proposal quantity change in this addendum (2,000 or -2,000 for example), and the proposal total after the addendum. The addendum development form breaks down the ID's, Category, Items as explained in **1.3.5 Addendum Instructions.**

Example:

Schedule of Items:

Revised Bid Item Quantities								
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum			
204.0170	Removing Fence	LF	15,641	-1,454	14,187			
521.1018	Apron Endwalls for Culvert Pipe Steel 18-inch	Each	12	-8	4			
522.0124	Culvert Pipe Reinforced Concrete Class III 24-inch	LF	544	-174	370			
608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-inch	LF	1,018	-457	561			
646.7120	Marking Diagonal Epoxy 12-inch	LF	540	140	680			

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
520.1012	Apron Endwalls for Culvert Pipe 12-inch	Each	0	1	1
520.1018	Apron Endwalls for Culvert Pipe 18-inch	Each	0	14	14
520.1024	Apron Endwalls for Culvert Pipe 24-inch	Each	0	4	4
SPV.0060.67	CIP Outlet Control Structure Pond A	Each	0	1	1
SPV.0060.68	CIP Outlet Control Structure Pond B	Each	0	1	1

	Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum	
204. <u>9060 S.</u> 01	Removing Chain Link Gate	Each	1	-1	0	
521.3118	Culvert Pipe Corrugated Steel 18-inch	LF	174	-174	0	
608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-inch	LF	124	-124	0	
SPV.0060.10	Outlet Control Structure Pond A	Each	1	-1	0	
SPV.0060.11	Outlet Control Structure Pond B	Each	1	-1	0	

1.4.4 Plan Sheets:

Plan Sheets:

Revised Plan Sheets		
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)	

Added Plan Sheets		
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)	

Deleted Plan Sheets		
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)	

- If there are multiple ID's (and are separate plan sets), copy and paste the boxes and add the project ID after the **Revised**, **Added**, **Deleted** Plan Sheets rows.
- For **Added** Plan Sheets, locate where the sheet(s) are to be inserted. If between sheet 31 and 32, you would call the plan sheet 31A. If multiple in same inserted location, you would call them 31A, 31B, 31C etc.

Example:

	Revised Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
34	Construction Detail-Millpond Infield-Optional Waste Site (increased top slope along
10	alignment from 1% to 2%)
42	Drainage Pond Detail (revised item name callouts)
190	Storm Sewer: CTH AB/Millpond Road (revised SS pipe & AEW materials)
191	Storm Sewer: CTH AB (revised SS pipe & AEW materials)
474	Miscellaneous Quantities (switched bid item for culvert pipes)
477	Miscellaneous Quantities (switched bid items for SS pipes)
	Added Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
31A	Added Construction Detail
	Deleted Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
639	SDD Driveways Without Curb and Gutter

1.4.5 Other

Other

(If necessary, describe any other miscellaneous changes here.)

• This is the location where you would call out revising time for completion.

Examples:

Other

Revise Contract Completion Time from a completion date of June 30, 2023 to a completion date of August 26, 2023.

- Revise the contract time for completion from 80 working days to 90 working days (an increase in 10 working days.
- Revise the contract time for completion from 40 working days to a completion date of August 26, 2022.

1.4.6 Special Provisions:

ADDENDUM NO. x PROJECT ID Month DD, YYYY

Special Provisions

x. xxxxxxxxxxxxxxxxxxxxxxxxxx

xx. xxxxxxxxxxxxxxxxxxxxxxxxxxx

- A Description
- **B** Materials
- C Construction

D Measurement

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item: ITEM NUMBER DESCRIPTION

ГЕМ	NUMBER	2
xxx	XXXXXX	

```
UNIT
XX
```

Example:

36.	Deleted
49.	General Provisions for City of Madison Storm Sewer.
Repla	ce paragraph six with the following:
	<u>Construct</u> catch basins, manholes and inlets using the cast in place concrete masonry option. All structures shall be reinforced concrete. Concrete brick and block options are prohibited.
133.	CIP Outlet Control Structure Pond A, Item SPV.0060.67; CIP Outlet Control Structure Pond B, Item SPV.0060.68.

A Description

Furnish and install a CIP Outlet Control Structure Pond according to the pertinent provisions of standard spec 611, the general provisions for City of Madison Storm Sewer, the as shown on the plans, and as

hereinafter provided. Furnish and install a trash rack on the outlet control structure and according to the pertinent provisions of standard spec 506 and 513, as shown on the plans and as hereinafter provided. Provide orifice holes and PVC pipe and fittings as shown on the plan. Provide concrete to fill the bottom of the structure as shown on the plans. B Materials Furnish manhole materials according to standard spec 611. Furnish concrete according to applicable provisions of standard spec 501. Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel galvanizing according to ASTM A123 and ASTM 1153 as applicable. Trash rack shall be fabricated from structural steel shapes, flat bar and plates, and shall be galvanized after fabrication. Shop drawings for the trash rack shall be submitted to the engineer for approval prior to fabricating the trash rack. Furnish bolts, nuts and washers for the installation of the trash rack onto the outlet control structure according to standard spec 513.2.1. C Construction Construct CIP Outlet Control Structure Pond according to the applicable provisions of standard spec 611.3. D Measurement The department will measure CIP Outlet Control Structure Pond as each individual structure, acceptably completed. E Payment The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.67	CIP Outlet Control Structure Pond A	EACH
SPV.0060.68	CIP Outlet Control Structure Pond B	EACH

Payment is full compensation for providing and placing all materials, including all masonry, steel and pipe connections, and other fittings; furnishing and installing trash rack; for providing orifice hole, PVC, and fittings; for furnishing, placing, <u>protecting</u> and curing concrete to fill the structure bottom; for furnishing all excavating, backfilling, disposing of surplus material, and cleaning out of structure.

Work associated with constructing the clay anti-seep collar will be paid for separately.

Other examples of revising special provisions:

- Replace entire article language with the following:
- Remove paragraph 4
- Replace paragraph 4 with the following:
- Add the following under section titled B Materials:

1.4.7 Conclusion:

Schedule of Items

Attached, dated Month DD, YYYY, are the revised Schedule of Items Pages x, x, x, x, xx - xx, xx and xx.

Plan Sheets

The following $8\frac{1}{2} \times 11$ -inch sheets are attached and made part of the plans for this proposal: Revised: x, xx, xx, xx, xxx, xxx, xxx, xxx and xxx. Added: xxA, xxA, xxA, xxA, xxX.

END OF ADDENDUM

- The Schedule of Items section will be filled out by the Proposal Development when issuing the addendum.
- Submitter fills out the **Plan Sheets** section.

Example:

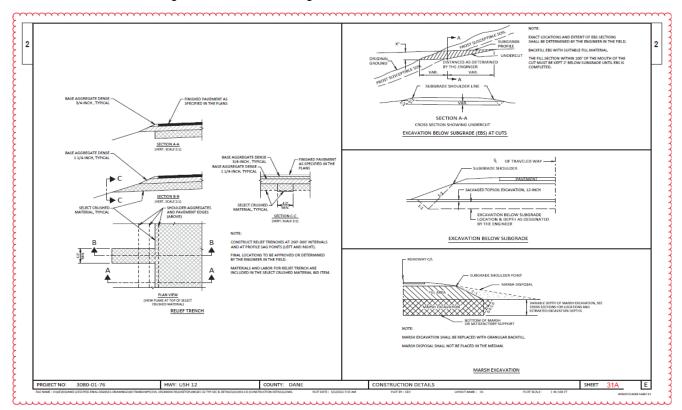
Schedule of Items Attached, dated June 28, 2022, are the revised Schedule of Items Pages 1 – 30.

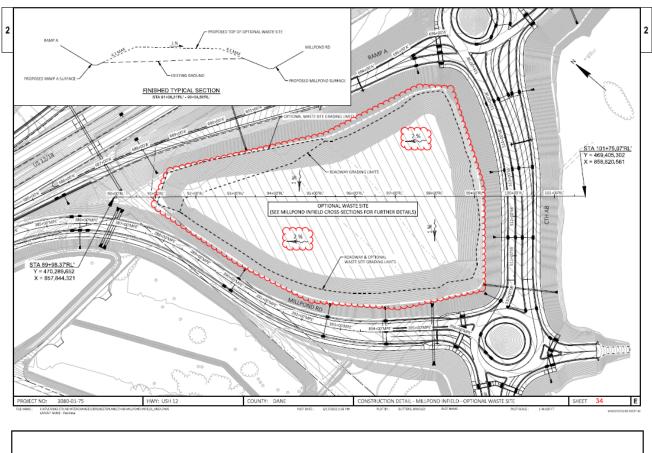
Plan Sheets

The following $8\frac{1}{2} \times 11$ -inch sheets are attached and made part of the plans for this proposal: Revised 34, 42, 190, 191, 474, and 477. Added: 31A

1.4.8 Plan Sheet Instructions:

Plan Sheets revised and/or added plan sheets are to be submitted at 8 $\frac{1}{2}$ x 11 pdfs with red revision clouds around the changes and plan sheet number in the lower right of the sheet. See Addendum Development Form for instructions for submitting Structure Sheet changes.





						<u>c.</u>	ILVERT ITEMS										
						520.1018	5 20.1024	520.3338	520.3324	522.D142	522 05:24	522.1024	522.1042	512.2334	522,2634	• 633 5200	
						APRON ENDWALLS	#PRON ENDWALLS	OLLVERT PIPE	CULVERT	CULVERTPIPE RENFORCED CONCRETE	CULVERT P PE REINFORCED CONCRETE	APRON ENDWALLS FOR-CULVERT PIPE RELVFORCED	WFRON ENDWALLS FOR CULVERT PIPE REINFORCED	CULVERT PIPE REINFORCED CONCRETE HORIZONTIAL ELUPTICAL	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL	MAFRERS	
PROJECT	*** INLET	*** DL	TIET	PIPE		FOR CULVERT FIPE 18-INCH		CLISS III-A CRIMCH	24-INCH	CLASS III-52- INCH	CLASSV 24- INCH	CONCRETE 24- INCH	CONCRETE-\$2- INCH	CLASS HEHI 34453-INCH	BLUPTICAL 34X534NCH	OULVERT	JOINT TES
	AGE STATION OFFSET ELEV. IN					EACH	SACH	UF	LF	LF	UF	EACH	EACH	U	EACH	EACH	EACH
3030-01-75 0010 2		<u></u>	5 1 375 30 3 368 0 1 375 30 1 368 1 81 375 30 1 388		MILIPONE 3D	m	2000	m	m	2020	min	min	min	mm	min	<u></u>	m
	534+42"NB 48.4 T 875.0				CT- AB						-	-		12.2	z	2	1.2
				513	NGE 2 SU BTICTALS	D	2	0	174	138	336	2	2	122	2	8	36
30-80-01-75 0010 3	502+07 NE 44.3 T 890.3	0 50G-45 "NB" 44.	4'RT 3888.90 3.85% A'LT 3898.80 3.67%	0.051 0.051	F.E. RT P.E. LT			35 45	\sim						\cdots		\mathbb{Z}
	(103+76 SE 39 X LT 3915	uuu	uuuu	un	mu	LLL L	uu		\sim	\cdots	·····	·····	\dots	\sim	\sim		
	uuuuu		unnu	~~~~	NGE B SU BTOTALS	4	0	82	D	0	D	0	0	0	0	D	D
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS		~~~~		4	0	82	D 174	0	0 336	2	0 2	0	2	D B	0 36
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS		~~~~	NGE 3 SU BTOTALS		2 DND DRA NAC	82								D B	D 36
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS		~~~~	NGE 3 SU BTOTALS	COUNTY	2 AND DRA DRA ST. JOIN AREON MOVALLSFOR	SE ITEMS SECORUGATED CORRUGATED	174 SPV.066 SPECIAL CEWATE	138 50.25 977.0 .(25. 30NG SPEO	306 1055 D1.					D E	D 36
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS	NUCTURE	SIA	GE 3 QUICTALS	CCUNTY	2 * * 521.3018 ARON MUVALISTOR FULL STREPT FULL STREPT STR	SECTIONS SECTIONS CLUVERTHINE CORVICATED POLYTHENEN 18-NCH	SPV.06 SPECIAL CENATE FOR DA	138 50.25 97/.0 (25. 28NS SPEC UNTY 3-1800 0) ST	3396 1155 D1. HL (01. + CLIAR CNE)	2				E	0
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS	NUCTURE	~~~~	GE 3 QUICTALS	CCUNTY	2 SOLO DRA NAS SOLO DRA NAS	SE LITENS SB0 0018 CULVERTING CONVERTING DOWNERMEN	174 SPV.066 SPEDuk CEWATE FOR DX	138 50.25 97/.0 (25. 28NS SPEC UNTY 3-1800 0) ST	306 306 1155 D1 141 (01. CLAR	2				E	0
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS	NUCTURE	EGD 14 HOL	GE 3 QUITOTALS TOTAL 0010	CCUNTY E IONISS	2 * * 521.3018 ARON MUVALISTOR FULL STREPT FULL STREPT STR	SECTIONS SECTIONS CLUVERTHINE CORVICATED POLYTHENEN 18-NCH	SPV.06 SPECIAL CENATE FOR DA	138 50.25 597.0 (.05. SNN5 59100 SNN5 59100 SNN5 34400 D) 513 H	3396 1155 D1. HL (01. + CLIAR CNE)	2				B	D 36
** NON-BID ITEM: FOR	THES LISTED ELSEWHERE IN 3	030-01-75 PLANS	PIGHCT PIGHCT - WORKET CAT	EGD 14 HOL	-С РРС-1 - DC РРС-1 - DC БА	CCUNTY E IONISS	2 2011 A DRA NAC 2012 DRA NAC 2013 DRA 2013 DRA 2014 DRA	S2 SELTIONS S30 00.18 S30 00.18 S300 0000000000000000000000000000000000	374 SPV.066 SPSCAL CEWATE FOR OK POW BAC	138 50.25 97/0 .(25. 28NS 9Pt0 UNT7 3H00 UNT 3H00 N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	396 396 1155 D1. 141 (01. 141 (01.))))))))))))))))))))))))))))))))))))	2				D E	0

1.4.9 Changes to the estimate:

All changes to the estimate after advertisement will be handled by the Proposal Development Specialist as part of the addenda. A copy of the revised estimate will be sent to the email recipients on the addendum submittal.

1.5 Final Coordination with BPD

Once the addendum has been prepared, e-mail the addendum to the Proposal Development Specialist utilizing the Proposal Management Section mailbox - DOT DTSD BPD Proposal Management Section or <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u>. The addendum should be in one MS Word electronic file. Attach plan and detail PDF files to the email, if appropriate. BPD should receive all addenda no later than 5:00 PM the Wednesday before the bid letting.

1.6 BPD Processing

Once the addendum information has been transmitted to BPD:

- 1. The addendum will be reviewed and edited if necessary. A PDF file of the addendum will be created.
- 2. Changes will be made to the estimate and a PDF file of the revised Schedule of Items pages will be created.
- 3. The plan sheet PDF files will be reviewed and printed to Adobe Acrobat Distiller to assure 8 ½ x 11inch format.
- 4. The addendum, plan sheets, and SOI pages will be merged into a single PDF addendum file.

Once the addendum is complete, BPD will send a notice to the email recipients of the addendum submittal. For addenda on projects that have federal oversight for design and construction, the FHWA oversight engineer will receive the completed addendum prior to posting. Once we have approval from FHWA, the addendum will be posted and notices sent that the addendum will be placed on the HCCI site located on line at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/default.aspx

within one working day.

BPD does not normally mail addenda to the regions or to contractors. Contractors are required to review the HCCI site until 5:00 PM on the Thursday before the letting to review and print out any addenda for proposals for which they are submitting a bid. "Emergency" Addendum shall be emailed to the Eligible Bidders list for that proposal. The contractor(s) must reply to the email that they have received the addendum. If the file is larger than 5 MB, the contractor will be sent a link to the addendum located on the HCCI site.

The complete addendum as a PDF file and the final MS Word file of the addendum without the attachments are also placed on the DOTNET at the following location: \\DotDtidN\n4public\Bhc\ADDENDA. Use this location to view recent addenda that can be used as a template when preparing an addendum, or contact the Proposal Development Specialist at (608) 266-3985.

1.7 Measuring Addenda

After the letting, an addendum listing is sent to FHWA. The DQI (Design Quality Index) is output from the Addendum Development Form and is used by management to see what issues we are seeing with the plans and specifications.

LIST OF ATTACHMENTS

<u>Attachment 1.1</u>	Addenda Development Form (blank)
Attachment 1.2	Sample Completed Addenda Development Form
Attachment 1.3	Addendum Form (Blank)
Attachment 1.4	Sample Completed Addendum

FDM 19-22-5 Post Advertisement Questions and Answer Process

June 24, 2016

5.1 Introduction

To facilitate communication with the construction industry, the department will utilize the Questions and Answers (Q/A) feature within Bid Express, <u>https://www.bidx.com/</u>. Industry will ask question(s) through Bid Express for advertised proposals. Questions will be allowed up to 11:45 am the day before the letting, however any question submitted after 2 pm the Thursday prior to the letting may not have sufficient time to prepare a thorough response or develop contract addenda. Bureau of Project Development (BPD) staff will work with Regional staff to answer the question(s). Once the question(s) have been answered, the answer(s) will be available through Bid Express for all Bid Express subscribers. The answer(s) will be available on the specific bid letting page within the HCCI website as an Excel document.

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/qa.aspx

The Questions and Answers page is also available in the left navigation bar of the HCCI website.

These responses are not a contract document by definition (<u>standard spec 101</u>); however, they are the official response of the Department.

5.2 Process

When a question is submitted through Bid Express, an email is generated and sent to BPD at the following address: <u>DOTBidxQA@dot.wi.gov</u>. If Regional or Consultant staff receive a question directly from industry, the person receiving the question should submit the question to BPD through the email provided if they feel the answer would be beneficial to all of industry.

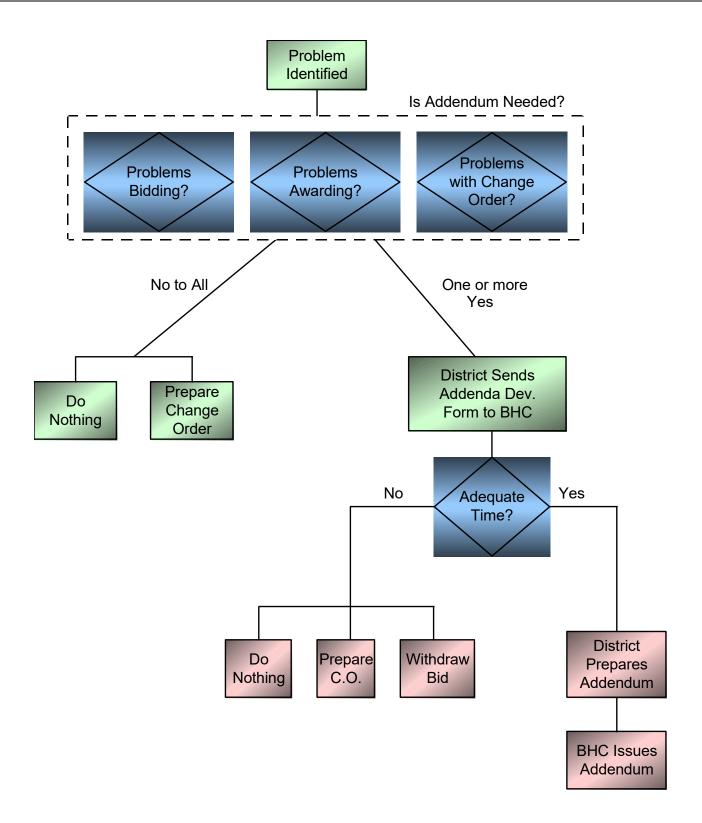
The <u>DOTBidxQA@dot.wi.gov</u> mailbox will be monitored by BPD staff. Each month, at the time of advertisement, a proposal design contact list will be saved in the mailbox.

Once a question has been submitted and verified by BPD staff, the questions will be made public on the Bid Express website so industry is aware the question has been asked. Once a question has been published, the question(s) will be forwarded by BPD staff to the appropriate Project Manager, Project Designer, and Supervisor as listed within the plan letter and FIIPs. The Project Staff will provide, within 5 business days or less, the answer(s) to the <u>DOTBidxQA@dot.wi.gov</u> mailbox.

The answer(s) will be reviewed and posted to the Bid Express website (<u>https://www.bidx.com/</u>) website, Q&A section, and the HCCI website,

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/qa.aspx

Please note, questions sent after 2 pm the Thursday before the letting, may not be answered prior to letting. Every effort will be made to answer the questions in a timely manner.



Note: It is expected that the Region will identify 90% of the problems and central office will identify the remaining 10%. Regardless, the Regions are responsible for preparing the addendum.

ADDENDUM DEVELOPMENT FORM

(See <u>FDM 19-22 A1.2 File 1</u> for a working copy of this document) **ADDENDUM DEVELOPMENT FORM**

Letting Date: Proposal Number: Proposed Addendum No.: Project ID: Federal ID: Project Description:

> Contact Person: Phone Number: Date:

PROGRAM TYPE (CHECK ONE):

TIME FOR ADDENDU			
ITSTBR (304)		Other	
☐ Major (302)	☐ Maint (305)	State (303)	SE (301ZO)
🗌 Local (205)	🗌 Local (290)	🗌 Local (206)	Local (211)

Is there sufficient time to issue an addendum?

Yes

□ No

Note: Time defined as delivery of the addenda and the plans to the BPD's Proposal Management Section (refer to table below).

Timing of Addendum	On-Time	Late	Emergency
Delivery of addenda to BPD	8 am, two- Thursdays before the letting	Between 8 am two-Thursdays before and 5 pm the Wednesday prior to the letting	After 5 pm the Wednesday before the letting <u>and</u> addenda not posted prior to 5pm on Thursday prior to let

Emergency Addenda, if processed, must be emailed to all eligible bidders and confirmation of receipt by the contractors must be received by BPD. It will be BPD's decision to process the addendum.

JUSTIFICATION CRITERIA FOR ADDENDUM DEVELOPMENT

Is addenda needed:

Would the contractor have problems preparing the bid? Would there be problems with awarding the bid? Would there be difficulty in preparing a change order?

🗌 Yes	🗌 No	
	Yes	🗌 No
🗌 Yes	🗌 No	

Explain (address the consequences of not issuing the addenda measured in terms of cost, time or meeting project commitments):

		. = = =			
<u>wно</u>	INITIATE	D THE ADDENDUM	? (CHECK ALL THAT AP	PLY):	
□ Co	Region ntractor		Consultant	Central Office	
Please	e explain:	:			
<u>WHA</u>	IS THE	PRIMARY REASON	(S) FOR THE ADDENDU	<u>M? (CHECK ALL THAT APPLY):</u>	
		Bid Items/Quantities	(check all that apply)		
Other	🗌 Re	vised Bid Item(s)	Added Bid Item(s)	Deleted Bid Item(s)	
lf any	checked,	please explain:			
		Special Provisions (check all that apply)		
	☐ Re ☐ Oth	vised Article(s) ner	Added Article(s)	Deleted Article(s)	
lf any	checked,	please explain:			
		Plan Sheets (check	all that apply)		
Plan S	☐ Re Sheet(s)	vised Plan Sheet(s)	□ A	dded Plan Sheet(s)	Deleted
	🗌 Str	ucture Plan Revision	s) 🗌 Other		
lf any	checked,	please explain:			
		Design Related (che	eck all that apply)		
	🗌 Sta	indards changed	🗌 Change ir	n Project Scope	Other
lf any	checked,	please explain:			
ADDE		NSTRUCTIONS:			
Speci	al Provis	sions			
	Revise	ed Special Provision	s (include Article No.)		
	<u>Added</u>	Special Provisions	(include Article No.)		
	<u>Delete</u>	d Special Provision	<u>s (include Article No.)</u>		

Schedule of Items:

		Revised Bid Item Quantities - ID			
Category	Bid Item	Item Description	Unit	Current Quantity	Revised Quantity

		Added Bid Item Quantities - ID			
Category	Bid Item	Item Description	Unit	Quantity	Unit Price

	Deleted Bid Item Quantities - ID						
Category	Bid Item	Item Description	Unit	Current Quantity			

Plan Sheets

Revised Plan Sheets

Added Plan Sheets

Deleted Plan Sheets

DOES THIS ADDENDUM CONTAIN CHANGES TO:

Structure Plans?	
	Yes

If yes, list Structure Numbers:

□ No

~					
9	nocial	Provision	rovisions	that affort	structures?
J	peciai	1 10 13 011	10130113	that anotic	Siluciules:

🗌 No

☐ Yes

If you answered "Yes" to either questions 1 or 2, you must E-submit the relevant, revised component of the original E-submit below. In the "Comments" section of the E-submit, place a brief description of the addendum.

<u>Plan Sheets</u>: Do not resubmit the entire plan set. Only re-submit the changed plan sheets. The changes to the plan sheet shall be in red font and outlined by red clouding. The revision box shall also be filled in with red font. Each sheet shall be PE stamped, signed, and dated on the date of submittal.
 <u>Structure Design Computations</u>: The entire computation package with the revised computations shall be resubmitted. Do not submit just the portion of the computations that changed from the original submittal.
 <u>Structure Quantity Computations</u>: The entire quantity calculation package with the revised quantities shall be resubmitted. Do not submit just the quantity revision that changed from the original submittal.
 <u>Structure Special Provisions</u>: The official special provisions need to be submitted directly to BPD. Resubmit the special provision document for all special provisions pertaining to the structure to the Bureau of Structures (BOS). This document is for informational purposes only for the BOS.

If you have any other questions, please contact Steve Revello or Najoua Ksontini as a backup.

Email:Steven.Revello@dot.wi.govPhone: (608) 266-5095

Email: Najoua.Ksontini@dot.wi.gov Phone: (608) 266-2657

<u>FHWA</u>

Is this project subject to federal oversight for design?

🗌 Yes	🗌 No
-------	------

If yes, the addendum will need approval from FHWA prior to posting. Please communicate with the FHWA Oversight Engineer prior to submitting the addenda to Proposal Management, so FHWA is aware that an addendum is going to be submitted for approval. After the addenda is processed, Proposal Management will coordinate with the FHWA Oversight Engineer for approval of the addendum. After approval, the addendum will be posted on the HCCI site.

Conclusion

No. of Bid Items Changed

Total no. of Bid Items in Plans

No. of Plan Sheets Changed

Total no. of Plan Sheets in Plans

Attach this completed form along with the completed addendum form and send to: Mailbox: - DOT DTSD BPD Proposal Management Section or email: <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u>

ADDENDUM DEVELOPMENT FORM

Letting Date: Proposal Number: Proposed Addendum No.: Project ID: Federal ID: Project Description:		3080-01-75 WISC 2022450 Madison – Cambridge CTH AB Overpass USH 12 Dane County	3080-01-76 WISC 2022451 Madison - Cambridge CTH AB Interchange USH 12 Dane County
Contact Person: Phone Number: Date:			
PROGRAM TYPE (CHECK ONE	<u>):</u>		
☐ Local (205) □	Local (206)] Local (211)	☐ Local (290)
☐ Major (302) ⊠	State (303)] SE (301ZO)	☐ Maint (305)
□ ITSTBR (304) □	Other		
TIME FOR ADDENDUM Is there sufficient time to issue ar	addendum?	🛛 Yes 🗌 No	

Note: Time defined as delivery of the addenda and the plans to the BPD's Proposal Management Section (refer to table below).

Timing	of Addendum	On-Time	Late	Emergency
Delivery	of addenda to BPD	8 am, two- Thursdays before the letting	Between 8 am two-Thursdays before and 5 pm the Wednesday prior to the letting	After 5 pm the Wednesday before the letting <u>and</u> addenda not posted prior to 5pm on Thursday prior to let

Emergency Addenda, if processed, must be emailed to all eligible bidders and confirmation of receipt by the contractors must be received by BPD. It will be BPD's decision to process the addendum.

JUSTIFICATION CRITERIA FOR ADDENDUM DEVELOPMENT

Is addenda needed:

Would the contractor have problems preparing the bid? Would there be problems with awarding the bid? Would there be difficulty in preparing a change order?

\boxtimes	Yes	No
\boxtimes	Yes	No
\boxtimes	Yes	No

Explain (address the consequences of not issuing the addenda measured in terms of cost, time or meeting project commitments): If the addendum is not issued, a change order will be required for the Marking Diagonal Epoxy 12-inch, Culvert Pipes, Storm Sewer Pipes, and Apron Endwalls.

WHO INITIATED THE ADDENDUM? (CHECK ALL THAT APPLY):

Region

Consultant

Central Office

Contractor

Please explain: Consultant found that the marking diagonal epoxy 12-inch was missing on one of the marking sheets. The Contractor noted that confusion was created when determining which storm sewer structure items were covered by the general provisions for the City of Madison storm sewer. The Contractor also noted the use of alternate materials for specific sizes of culvert pipes, storm sewer pipes, and apron endwalls.

WHAT IS THE PRIMARY REASON(S) FOR THE ADDENDUM? (CHECK ALL THAT APPLY):

\boxtimes	Bid Items/Quantities (check a	all that apply)			
	Revised Bid Item(s)	Added Bid Item(s)	⊠ Deleted	d Bid Item(s)	⊠ Other
contra pipes,	checked, please explain: The ctor's bids would not reflect th and apron endwalls were inc items were incorrect as a por	he actual work required. orrect and would result w	The bid items /ith inaccurate	for select culvert	pipes, storm sewer
\boxtimes	Special Provisions (check all	that apply)			
	Revised Article(s)	Added Article(s)	Deleted	d Article(s)	Other
Specia Specia cast-ir Specia Ponds	checked, please explain: al Provision Article 36 was de al Provision Article 49 is modi n-place structures. al Provision Article 80 was de s A and B are now called out a on storm sewer.	fied to reduce inconsister leted and content split int	ncy in the exp to Articles 13	pectations from th 3 and 134. Outlet	control structures for
\boxtimes	Plan Sheets (check all that a	pply)			
	Revised Plan Sheet(s)	🛛 Added Plan S	heet(s)	Deleted Plan S	Sheet(s)
	Structure Plan Revision	ns 🛛 Other			
Infield was re pipe n allow f Millpo endwa and aj sheet revise displa	checked, please explain: Pla Optional Waste Site. Plan sh evised to show work by others naterial from reinforced concre for multiple material options. I nd Road. Miscellaneous quar alls. Miscellaneous quantity sh pron endwalls. Miscellaneous 515 has revised item names d quantity for the diagonal ma ying the culvert pipe material.	eets 42-44 were revised s. Plan sheets 190-192, 1 ete to Class III-A. Additio Plan sheet 307 was revis ntity sheet 474 has revise neets 477-479, 481, 509 quantity sheet 493 has r in the Pond A and B drain arking item. Plan sheets 5 Cross section sheets 13	to show the r 96, 197 were nally, the apr ed to include d bid items for has revised b evised remov nage tables. I 585 and 588 v	revised pay item of e revised to chang on endwall bid ite marking diagona or specific culvert bid items for speci ving fence table. M Miscellaneous qu were revised to u	callouts. Plan sheet 80 ge the storm sewer ms were changed to I epoxy 12-inch along pipes and apron fic storm sewer pipes Miscellaneous quantity antity sheet 548 has a odate a note
	Design Related (check all that	at apply)			
	Standards changed	Change in Projec	t Scope	Other	
lf any	checked, please explain:				

ADDENDUM INSTRUCTIONS:

Special Provisions

Revised Special Provisions (include Article No.)

49. General Provisions for City of Madison Storm Sewer

Added Special Provisions (include Article No.)

133. CIP Outlet Control Structure Pond A, Item SPV.0060.67; CIP Outlet Control Structure Pond B, Item SPV.0060.68.

134. Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item SPV.0060.14.

Deleted Special Provisions (include Article No.)

36. Deleted

80. Deleted

Schedule of Items:

	Revised Bid Item Quantities – ID 3080-01-75						
Category	Bid Item	Item Description	Unit	Current Quantity	Revised Quantity		
0010	521.1018	Apron Endwalls for Culvert Pipe Steel 18-inch	Each	8	4		
0010	522.0124	Culvert Pipe Reinforced Concrete Class III 24-inch	LF	174	0		
0010	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24- inch	LF	554	97		
0010	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30- inch	LF	124	0		

	Revised Bid Item Quantities – ID 3080-01-76							
Category	Bid Item	Item Description	Unit	Current Quantity	Revised Quantity			
0010	204.0170	Removing Fence	LF	15,429	13,975			
0020	646.7120	Marking Diagonal Epoxy 12-inch	LF	131	271			

Added Bid Item Quantities - ID 3080-01-75							
Category	Bid Item	Item Description	Unit	Quantity	Unit Price		
0010	520.1012	Apron Endwalls for Culvert Pipe 12-inch	Each	1	\$700		
0010	520.1018	Apron Endwalls for Culvert Pipe 18-inch	Each	10	\$600		
0010	520.1024	Apron Endwalls for Culvert Pipe 24-inch	Each	4	\$700		

	Added Bid Item Quantities - ID 3080-01-76					
Category	Bid Item	Item Description	Unit	Quantity	Unit Price	
0010	SPV.0060.67	CIP Outlet Control Structure Pond A	Each	1	\$8,000	
0010	SPV.0060.68	CIP Outlet Control Structure Pond B	Each	1	\$8,000	

	Deleted Bid Item Quantities – ID 3080-01-75					
Category	Bid Item	Item Description	Unit	Current Quantity		
0010	521.3118	Culvert Pipe Corrugated Steel 18-inch	LF	82		
0010	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-inch	LF	124		

FDM 19-22 Attachment 1.3 Sample Completed Addenda Development Form

	Deleted Bid Item Quantities – ID 3080-01-76					
Category	Bid Item	Item Description	Unit	Current Quantity		
0010	204.9060.S.01	Removing Chain Link Gate	Each	1		
0010	521.3118	Culvert Pipe Corrugated Steel 18-inch	LF	92		
0010	SPV.0060.10	Outlet Control Structure Pond A	Each	1		
0010	SPV.0060.11	Outlet Control Structure Pond B	Each	1		

Plan Sheets

Revised Plan Sheets

34, 42, 190, 191, 474, and 477.

Added Plan Sheets

31A

Deleted Plan Sheets

639

DOES THIS ADDENDUM CONTAIN CHANGES TO:

Structure Plans?	🗌 Yes	🛛 No
If yes, list Structure Numbers:		
Special Provision revisions that affect structures?	☐ Yes	🖂 No

If you answered "Yes" to either questions 1 or 2, you must E-submit the relevant, revised component of the original E-submit below. In the "Comments" section of the E-submit, place a brief description of the addendum.

<u>Plan Sheets</u>: Do not resubmit the entire plan set. Only re-submit the changed plan sheets. The changes to the plan sheet shall be in red font and outlined by red clouding. The revision box shall also be filled in with red font. Each sheet shall be PE stamped, signed, and dated on the date of submittal.
 <u>Structure Design Computations</u>: The entire computation package with the revised computations shall be resubmitted. Do not submit just the portion of the computations that changed from the original submittal.
 <u>Structure Quantity Computations</u>: The entire quantity calculation package with the revised quantities shall be resubmitted. Do not submit just the quantity revision that changed from the original submittal.
 <u>Structure Special Provisions</u>: The official special provisions need to be submitted directly to BPD. Resubmit the special provision document for all special provisions pertaining to the structure to the Bureau of Structures (BOS). This document is for informational purposes only for the BOS.

If you have any other questions, please contact Steve Revello or Najoua Ksontini as a backup.

Email:Steven.Revello@dot.wi.govPhone: (608) 266-5095Email:Najoua.Ksontini@dot.wi.govPhone: (608) 266-2657

FHWA

Is this project subject to federal oversight for design?

If yes, the addendum will need approval from FHWA prior to posting. Please communicate with the FHWA Oversight Engineer prior to submitting the addenda to Proposal Management, so FHWA is aware that an addendum is going to be submitted for approval. After the addenda is processed, Proposal Management will coordinate with the FHWA Oversight Engineer for approval of the addendum. After approval, the addendum will be posted on the HCCI site.

No No

Conclusion

No. of Bid Items Changed	15	Total no. of Bid Items in Plans	447
No. of Plan Sheets Changed	7	Total no. of Plan Sheets in Plans	1328

Attach this completed form along with the completed addendum form and send to: Mailbox: - DOT DTSD BPD Proposal Management Section or email: <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u> (See FDM 19-22 A1.4 File 1 for a working copy of this document)



Wisconsin Department of Transportation

Month DD, YYYY

Division of Transportation Systems Development Bureau of Project Development 4822 Madison Yards Way, 4th Floor South Madison, WI 53705

Telephone: (608) 266-1631 Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #xx: Project ID, Federal ID Project Title Project Limit Route County Project ID, Federal ID Project Title Project Limit Route County

Letting of Letting Date

This is Addendum No. xx, which provides for the following:

Special Provisions:

	Revised Special Provisions				
Article No.	Description				

	Added Special Provisions				
Article No.	Description				

	Deleted Special Provisions				
Article No.	Description				

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum

	Added Bid Item Quantities				
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
			0		
			0		
			0		
			0		
			0		

	Deleted Bid Item Quantities				
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
					0
					0
					0
					0
					0

Plan Sheets:

	Revised Plan Sheets				
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)				

	Added Plan Sheets			
Plan Sheet	eet Plan Sheet Title (brief description of why sheet was added)			

	Deleted Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)

Other

(If necessary, describe any other miscellaneous changes here.)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist Proposal Management Section

ADDENDUM NO. x PROJECT ID Month DD, YYYY

Special Provisions

A Description

B Materials

C Construction

D Measurement

The department will measure xxxxxxxxxxxxxxxxxxxx by the xxxxxxxx, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:				
ITEM NUMBER	DESCRIPTION	UNIT		
XXXXXXXXX	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	XX		

Schedule of Items

Attached, dated Month DD, YYYY, are the revised Schedule of Items Pages x, x, x, xx – xx, xx and xx.

Plan Sheets

The following $8\frac{1}{2} \times 11$ -inch sheets are attached and made part of the plans for this proposal: Revised: x, xx, xx, xx, xxx, xxx, xxx, xxx and xxx. Added: xxA, xxA, xxA, xxA and xxx.

END OF ADDENDUM



Wisconsin Department of Transportation

June 28, 2022

Division of Transportation Systems Development

Bureau of Project Development 4822 Madison Yards Way, 4th Floor South Madison, WI 53705

Telephone: (608) 266-1631 Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #01: 3080-01-40 Madison - Cambridge CTH AB Overpass USH 12 Dane County

> 3080-01-76, WISC 2022451 Madison - Cambridge CTH AB Interchange USH 12 Dane County

3080-01-75, WISC 2022450 Madison - Cambridge CTH AB Overpass USH 12 Dane County

Letting of July 12, 2022

This is Addendum No. 01, which provides for the following:

Special Provisions:

Revised Special Provisions		
Article No.	Description	
49	General Provisions for City of Madison Storm Sewer.	

	Added Special Provisions				
Article	Description				
No.	Description				
133	CIP Outlet Control Structure Pond A, Item SPV.0060.67; CIP Outlet Control Structure Pond B,				
155	Item SPV.0060.68.				
134	Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item				
134	SPV.0060.14.				

	Deleted Special Provisions
Article No.	Description
36	Removing Chain Link Gate, Item 204.9060.S.01
80	Outlet Control Structure Pond A, Item SPV.0060.10; Outlet Control Structure Pond B, Item SPV.0060.11; Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item SPV.0060.14.

Schedule of Items:

	Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum	
204.0170	Removing Fence	LF	15,641	-1,454	14,187	
521.1018	Apron Endwalls for Culvert Pipe Steel 18-inch	Each	12	-8	4	
522.0124	Culvert Pipe Reinforced Concrete Class III 24-inch	LF	544	-174	370	
608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-inch	LF	1,018	-457	561	
646.7120	Marking Diagonal Epoxy 12-inch	LF	540	140	680	

	Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum	
520.1012	Apron Endwalls for Culvert Pipe 12-inch	Each	0	1	1	
520.1018	Apron Endwalls for Culvert Pipe 18-inch	Each	0	14	14	
520.1024	Apron Endwalls for Culvert Pipe 24-inch	Each	0	4	4	
SPV.0060.67	CIP Outlet Control Structure Pond A	Each	0	1	1	
SPV.0060.68	CIP Outlet Control Structure Pond B	Each	0	1	1	

	Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum	
204.9060.S.01	Removing Chain Link Gate	Each	1	-1	0	
521.3118	Culvert Pipe Corrugated Steel 18-inch	LF	174	-174	0	
608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-inch	LF	124	-124	0	
SPV.0060.10	Outlet Control Structure Pond A	Each	1	-1	0	
SPV.0060.11	Outlet Control Structure Pond B	Each	1	-1	0	

Plan Sheets:

	Revised Plan Sheets		
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)		
34	Construction Detail-Millpond Infield-Optional Waste Site (increased top slope along alignment from 1% to 2%)		
42	Drainage Pond Detail (revised item name callouts)		
190	Storm Sewer: CTH AB/Millpond Road (revised SS pipe & AEW materials)		
191	Storm Sewer: CTH AB (revised SS pipe & AEW materials)		
474	Miscellaneous Quantities (switched bid item for culvert pipes)		
477	Miscellaneous Quantities (switched bid items for SS pipes)		

	Added Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
31A	Added Construction Detail

Deleted Plan Sheets		
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)	
639	SDD Driveways Without Curb and Gutter	

Other

Revise Contract Completion Time from a completion date of June 30, 2023 to a completion date of August 26, 2023.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist Proposal Management Section

ADDENDUM NO. 01

3080-01-40/3080-01-75/3080-01-76

June 28, 2022

Special Provisions

36. Deleted

49. General Provisions for City of Madison Storm Sewer.

Replace paragraph six with the following:

Construct catch basins, manholes and inlets using the cast in place concrete masonry option. All structures shall be reinforced concrete. Concrete brick and block options are prohibited.

80. Deleted

133. CIP Outlet Control Structure Pond A, Item SPV.0060.67; CIP Outlet Control Structure Pond B, Item SPV.0060.68.

A Description

Furnish and install a CIP Outlet Control Structure Pond according to the pertinent provisions of standard spec 611, the general provisions for City of Madison Storm Sewer, the as shown on the plans, and as hereinafter provided. Furnish and install a trash rack on the outlet control structure and according to the pertinent provisions of standard spec 506 and 513, as shown on the plans and as hereinafter provided. Provide orifice holes and PVC pipe and fittings as shown on the plan. Provide concrete to fill the bottom of the structure as shown on the plans.

B Materials

Furnish manhole materials according to standard spec 611.

Furnish concrete according to applicable provisions of standard spec 501.

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel galvanizing according to ASTM A123 and ASTM 1153 as applicable.

Trash rack shall be fabricated from structural steel shapes, flat bar and plates, and shall be galvanized after fabrication. Shop drawings for the trash rack shall be submitted to the engineer for approval prior to fabricating the trash rack.

Furnish bolts, nuts and washers for the installation of the trash rack onto the outlet control structure according to standard spec 513.2.1.

C Construction

Construct CIP Outlet Control Structure Pond according to the applicable provisions of standard spec 611.3.

D Measurement

The department will measure CIP Outlet Control Structure Pond as each individual structure, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER DESCRIPTION

UNIT

SPV.0060.67	CIP Outlet Control Structure Pond A	EACH
SPV.0060.68	CIP Outlet Control Structure Pond B	EACH

Payment is full compensation for providing and placing all materials, including all masonry, steel and pipe connections, and other fittings; furnishing and installing trash rack; for providing orifice hole, PVC, and fittings; for furnishing, placing, protecting and curing concrete to fill the structure bottom; for furnishing all excavating, backfilling, disposing of surplus material, and cleaning out of structure.

Work associated with constructing the clay anti-seep collar will be paid for separately.

134. Outlet Control Structure Pond C, Item SPV.0060.12; Outlet Control Structure Pond D, Item SPV.0060.14.

A Description

Furnish and install an Outlet Control Structure Pond according to the pertinent provisions of standard spec 611, as shown on the plans, and as hereinafter provided. Furnish and install a trash rack on the outlet control structure and according to the pertinent provisions of standard spec 506 and 513, as shown on the plans and as hereinafter provided. Provide orifice holes and PVC pipe and fittings as shown on the plan. Provide concrete to fill the bottom of the structure as shown on the plans.

B Materials

Furnish manhole materials according to standard spec 611.

Furnish concrete according to applicable provisions of standard spec 501.

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel galvanizing according to ASTM A123 and ASTM 1153 as applicable.

Trash rack shall be fabricated from structural steel shapes, flat bar and plates, and shall be galvanized after fabrication. Shop drawings for the trash rack shall be submitted to the engineer for approval prior to fabricating the trash rack.

Furnish bolts, nuts and washers for the installation of the trash rack onto the outlet control structure according to standard spec 513.2.1.

C Construction

Construct Outlet Control Structure Pond according to the applicable provisions of standard spec 611.3.

D Measurement

The department will measure Outlet Control Structure Pond as each individual structure, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Outlet Control Structure Pond C	EACH
SPV.0060.14	Outlet Control Structure Pond D	EACH

Payment is full compensation for providing and placing all materials, including all masonry, steel and pipe connections, and other fittings; furnishing and installing trash rack; for providing orifice hole, PVC, and fittings; for furnishing, placing, protecting and curing concrete to fill the structure bottom; for furnishing all excavating, backfilling, disposing of surplus material, and cleaning out of structure.

Work associated with constructing the clay anti-seep collar will be paid for separately.

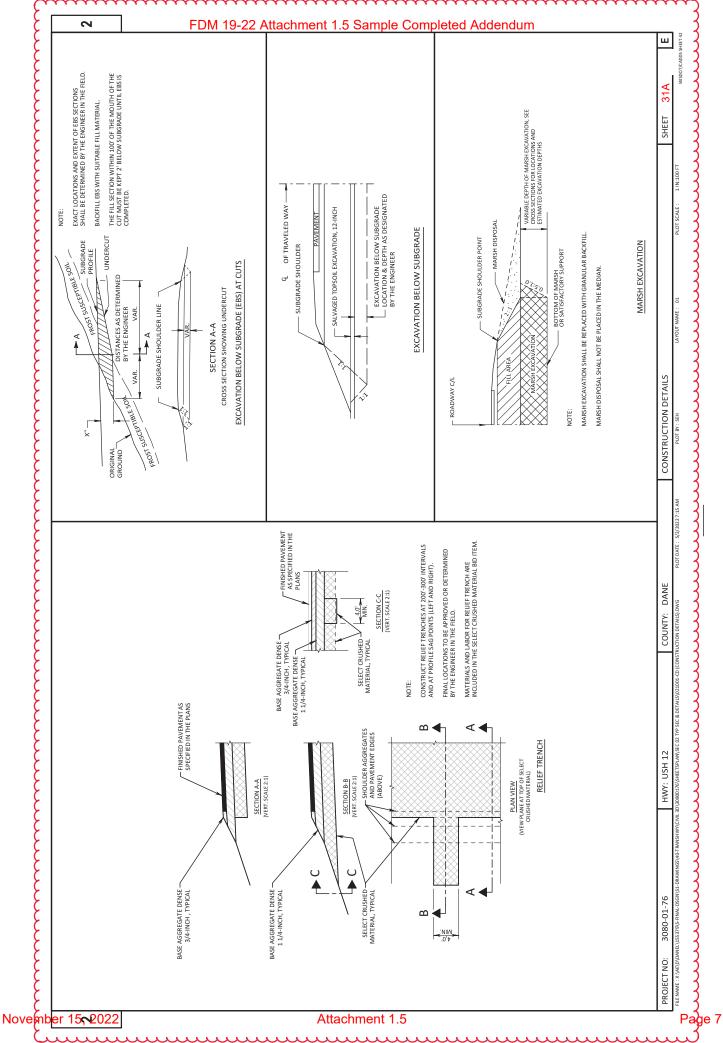
Schedule of Items

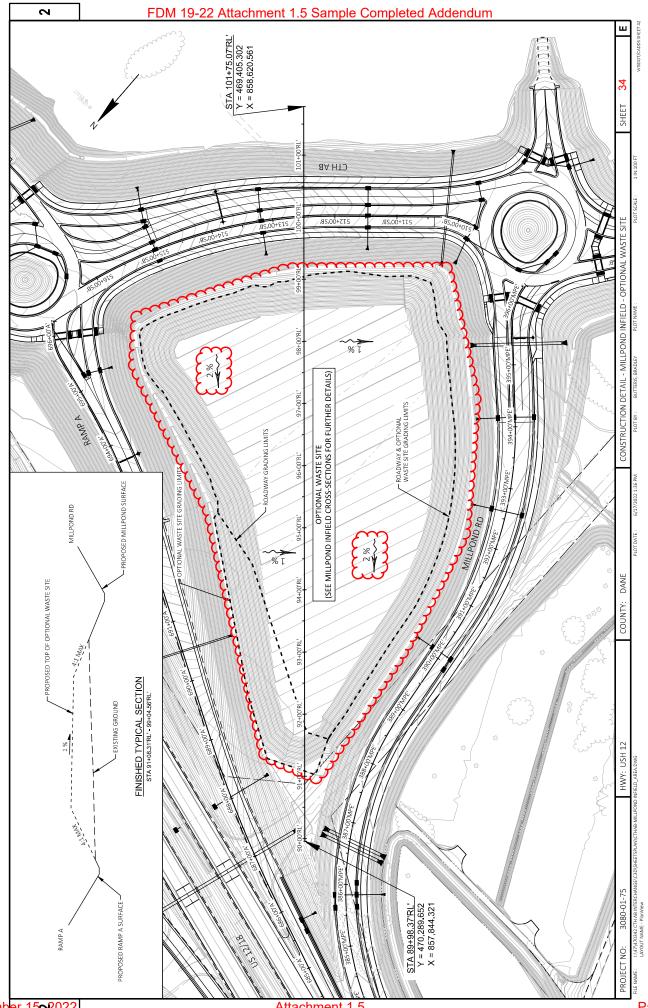
Attached, dated June 28, 2022, are the revised Schedule of Items Pages 1 - 30.

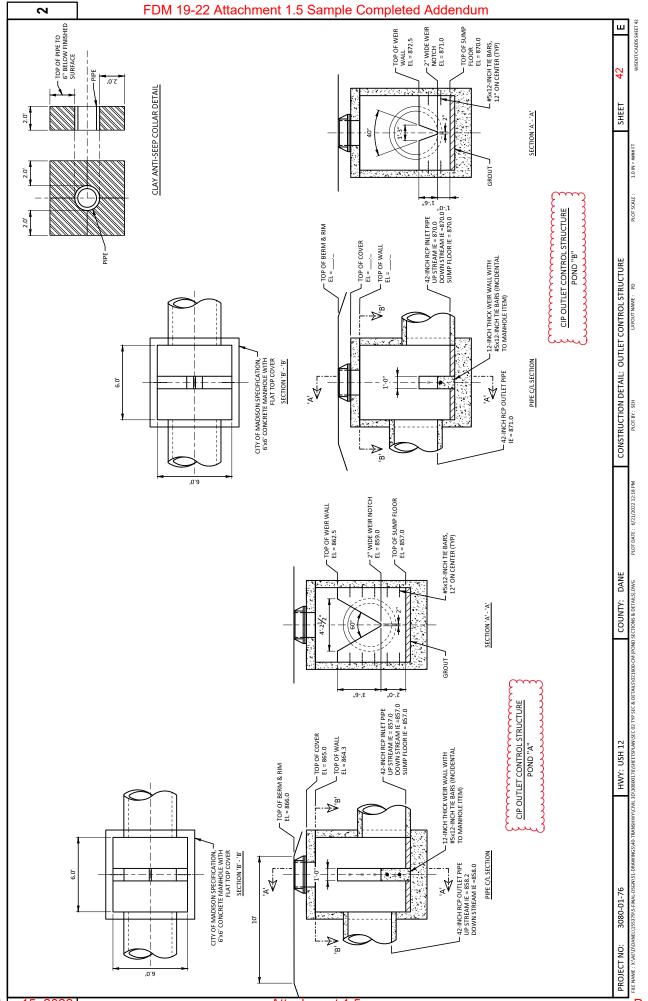
Plan Sheets

The following $8\frac{1}{2} \times 11$ -inch sheets are attached and made part of the plans for this proposal: Revised 34, 42, 190, 191, 474, and 477. Added: 31A

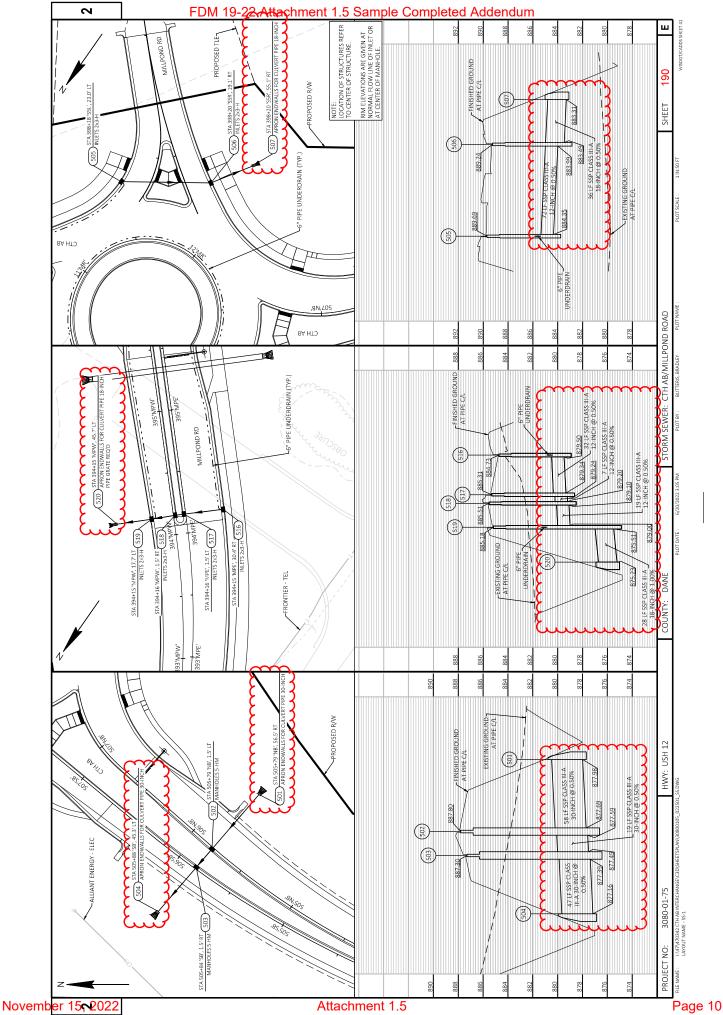
END OF ADDENDUM

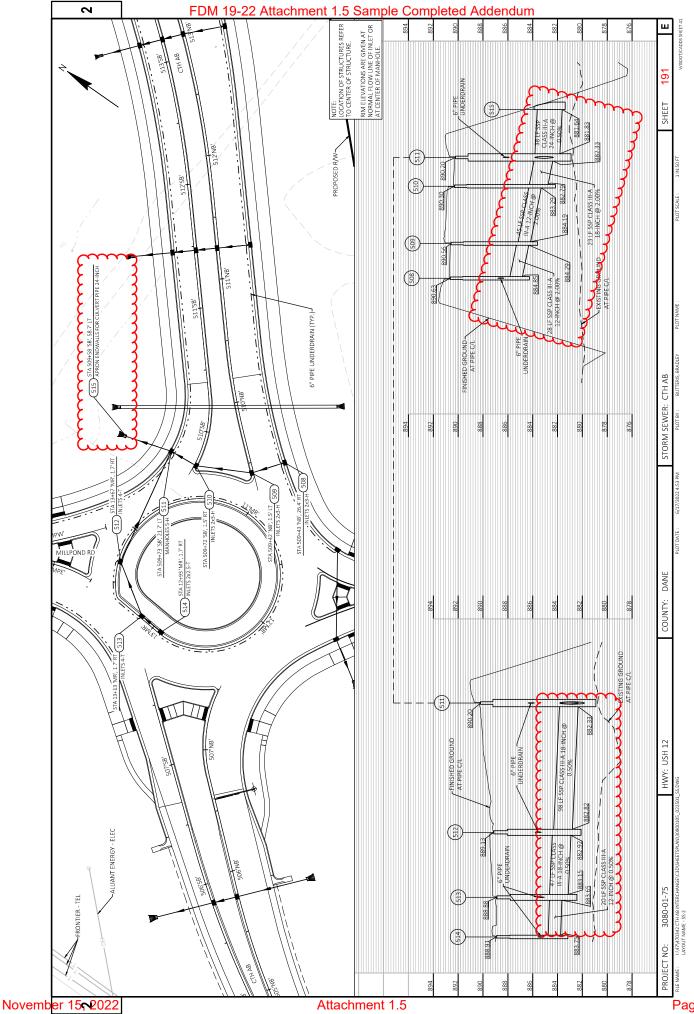






November 15,2022





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		** JOINT TIES EACH	a <mark>B</mark> a a	98	o	36							F
	* 633.5200	MARKERS CULVERT END EACH	N 10 10		0	80							474
			E			l							SHEET
	522.2634	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH EACH		2	0	2							Ś
	522.2334	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH LF	122	122	0	122							
		24.34	B			Ì							
	522.1042	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONGRETE 42- INCH			0	2							
	* 522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24- INCH EACH		21	0	2							
		Ũ	E E			Ì			3EMARKS	TWCPIPES			
	522.0524	CULVERT PIPE REINFORCED CONCRETE CLASS V 24- INCH UF		336	0	336			SPV.0155.01 SPECIAL (01. 3-INCH CLEAR 5-ONE) TON	4.5	4.5		
	522.0142	CULVERT PIPE REINFORCED CONCRETE CLASS III 42- INCH LF		138	0	138				4	4		TITIES
		-77.	E E						SPV.0060.25 SPECIAL (25. CEWATERING FCR COUNTY POUD) EACH	Ţ	Ŧ		MISCELLANEOUS OUANTITIES
	520.3324	CULVERT PIPE CLASSIII:A 24-INCH LF		174	0	174							I I ANFOI
	520.3318	CULVERT PIPE 2.8-INCH LF		0 36 46	82	82		TEMS	530 0118 530 0118 CLLYERT PIPE CORRUGATEC POLYETHYLENE 18- NC4 LF	52	52		MISCE
ITEMS	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH			0	2		CCUNTY POND DRA NAGE ITEMS				ANS	
CULVERT ITEMS			E			ļ		I GNO4 Y	* 521.1018 APR.014 ENDWALLS FCR CULVERT PIPE STEEL 18- NCH EACH	4	4	01-75 P.	
	520.1018	APRON APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH			4	4		COUN	ICKN 255	0.064	TCTAL 0010	N 30EG	
		LOCATION	MILLPOND BD CTH AB CTH AB CTH AB	BTCTALS E. RT E. LT	BTCTALS	- DTAL 0010			PIPE-HICKNESS	0.0	TOT	*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN 30EC-01-75 P .ANS	DANF
				STAGE 2 SUBTICTALS F.E. RT P.E. LT	STAGE 3 SUBTOTALS	TOTA			ہ ح	1 · DC2		LISTED EL	COLINTY-
		** OU_LET OPFSET ELEV (FT) SLOPE (%) THIC (NIESS (IN)	ß	0.064					03V FF.GV	0 CC1		ANTITIES	
		LOPE (%) TI	0.36% 0.60% 0.41%						T R CATEGORY	75 0010		IONAL QU	
		<u> нем (FT)</u>	875.90 876.95 874.00 874.50	888.90 3.67% 889.80 3.67%			URE		PROJECT	3080-01-75		*ADDIT	
			E 49.5'LT 93.0'LT 8' 170.1'RT 8' 41.1'LT	3' 44.4'RT 3' 40.4'LT			ANS DF STRUCT						ISH 12
		* \$	995-143 WPE 49.5' LT 875-90 510-121 WB 93.0 LT 875-90 524-26 WB 1.10.1' RT 874.00 525+27 'WB' 41.1' LT 874.50	502445 'NB' 44.4' RT 88.30 3.85% 503420 'SB' 40.4' LT 889.80 3.67%			01-75 PL CENTER C						HWY: USH 12
		LEV. (F.)	875.41 875.61 875.61 875.00	390.30 391.50			IN 3080-						
		*** INLET STATION OPESET BLEV.(F*)	395133 WPE 88.5 RT 875.41 509412 WE 21.2 RT 875.60 520433 WB 115.8 LT 875.61 520442 WB 48.4 RT 875.00	502+07 NB' 44.3 RT 890.30 502+76 '56' 39.2'LT 891.50			SEWHERE N ONLY TATION/D						
		**	5+33 'MPE 09478 'MB' 20483 'NB' 54+42' NB'	02+76 'SB'			LISTED EL DRMATIOI PIPE & S						
		Y STAGE					*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN 3080-01-75 PLANS ** NON-BID ITEM: FOR INFORMATION ONLY *** PIPE INVERT AT END OF PIPE & STATION/OFFSET TO CENTER OF STRUCTURE						3080-01-75
		CATEGORY STAGE	5 0010	5 0010			ONAL QUA BID ITEM: INVERT A						
		PROJECT NUMBER	3030-01-75	3080-01-75			*ADDITI ** NON- *** PIPE						PROJECT NO:

STOKYN SEW ER PLPES	308.0324 EC3.301.2 E03.301.8 E03.3024 STORVISWITE PE BINHORED STORMSEVJEF STORMSEVJER STORMSEVJER	CONCRETE CLASS III CONCRETE CLASS III P PE CLASS IIIA 12-NCH CANCOT CONCRETE CLASS IIIA 12-NCH CANCOT CANCOT CANCOT CANCOT CANCOT 12-NCH CANCOT CA				 	11		· · · · · · · · · · · · · · · · · · ·	12	CC-518						ELCS EN.168					36 - 15 895.12 825.2 0.050	31 838.02 36.02 86.02.02 86.02.02 36.02 96.02.02		25				· 14 · · · 5 897.12 897.63	28		- 54 5 839.24 839.27	
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FDM 19-22 Attachment 1.5 Sample Completed Addendum



Wisconsin Department of Transportation

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	Proposal Schedule of Items	Page 1 of 30
Proposal ID: 2022071	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4300 RBC Progress Schedule	1.000 EACH		
0004	201.0105 Clearing	121.000 STA	. <u> </u>	
0006	201.0115 Clearing	3.900 ACRE		
0008	201.0205 Grubbing	121.000 STA	. <u> </u>	
0010	201.0215 Grubbing	3.900 ACRE		
0012	203.0100 Removing Small Pipe Culverts	41.000 EACH	. <u> </u>	
0014	204.0100 Removing Concrete Pavement	17,845.000 SY		
0016	204.0110 Removing Asphaltic Surface	9,939.000 SY	. <u> </u>	ii
0018	204.0120 Removing Asphaltic Surface Milling	8,547.000 SY		·
0020	204.0150 Removing Curb & Gutter	1,636.000 LF		·
0022	204.0155 Removing Concrete Sidewalk	137.000 SY		·
0024	204.0170 Removing Fence	14,187.000 LF		
0026	204.0180 Removing Delineators and Markers	8.000 EACH		·
0028	204.0195 Removing Concrete Bases	4.000 EACH		·
0030	204.0210 Removing Manholes	6.000 EACH		·
0032	204.0220 Removing Inlets	27.000 EACH		<u>.</u>
0034	204.0225 Removing Septic Tanks	2.000 EACH		

FDM 19-22 Attachment 1.5 Sample Completed Addendum



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	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0036	204.0245 Removing Storm Sewer (size) 01. 12- Inch	688.000 LF		·
0038	204.0245 Removing Storm Sewer (size) 02. 15- Inch	137.000 LF		<u> </u>
0040	204.0245 Removing Storm Sewer (size) 03. 18- Inch	915.000 LF	·	·
0042	204.0245 Removing Storm Sewer (size) 04. 24- Inch	513.000 LF	·	;
0044	204.0245 Removing Storm Sewer (size) 05. 36- Inch	243.000 LF		
0046	204.0270 Abandoning Culvert Pipes	4.000 EACH		
0048	204.0280 Sealing Pipes	1.000 EACH		
0052	204.9060.S Removing (item description) 02. Existing Business Sign	2.000 EACH	·	·
0054	204.9060.S Removing (item description) 03. Existing Lighting Unit	1.000 EACH		;
0056	205.0100 Excavation Common	518,099.000 CY		
0058	205.0400 Excavation Marsh	6,210.000 CY		
0060	206.1000 Excavation for Structures Bridges (structure) 01. B-13-0893	LS	LUMP SUM	·
0062	209.2100 Backfill Granular Grade 2	16,215.000 CY		
0064	209.2500 Backfill Granular Grade 2	4,140.000 TON		
0066	210.1500 Backfill Structure Type A	534.000 TON		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0068	213.0100 Finishing Roadway (project) 01. 3080- 01-75	1.000 EACH	. <u> </u>	·
0070	213.0100 Finishing Roadway (project) 02. 3080- 01-76	1.000 EACH	<u>.</u>	
0072	214.0100 Obliterating Old Road	4.000 STA	. <u> </u>	
0074	305.0110 Base Aggregate Dense 3/4-Inch	3,910.000 TON	ii	
0076	305.0120 Base Aggregate Dense 1 1/4-Inch	86,472.000 TON	ii	
0078	305.0130 Base Aggregate Dense 3-Inch	28,179.000 TON	·	
0080	305.0500 Shaping Shoulders	186.000 STA	i	
0082	310.0110 Base Aggregate Open-Graded	862.000 TON	i	·
0084	312.0110 Select Crushed Material	69,647.000 TON	i	
0086	371.2000.S QMP Base Aggregate Dense 1 1/4-Inch Compaction	12.000 EACH		
0088	405.0100 Coloring Concrete WisDOT Red	552.000 CY	i	
0090	415.0060 Concrete Pavement 6-Inch	124.000 SY	·	
0092	415.0090 Concrete Pavement 9-Inch	28,521.000 SY	i	·
0094	415.0410 Concrete Pavement Approach Slab	160.000 SY		
0096	416.0160 Concrete Driveway 6-Inch	62.000 SY	i	·
0098	416.0512 Concrete Truck Apron 12-Inch	1,660.000 SY		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0100	416.0610 Drilled Tie Bars	934.000 EACH	·	
0102	416.0620 Drilled Dowel Bars	1,774.000 EACH		
0104	416.1715 Concrete Pavement Repair SHES	602.000 SY	ii	
0106	416.1725 Concrete Pavement Replacement SHES	1,586.000 SY	i	
0108	450.4000 HMA Cold Weather Paving	2,925.000 TON	i	<u>.</u>
0110	455.0605 Tack Coat	5,792.000 GAL	i	. <u></u>
0112	460.2000 Incentive Density HMA Pavement	14,060.000 DOL	1.00000	14,060.00
0114	460.5223 HMA Pavement 3 LT 58-28 S	360.000 TON	i	. <u></u>
0116	460.5224 HMA Pavement 4 LT 58-28 S	290.000 TON	i	
0118	460.6223 HMA Pavement 3 MT 58-28 S	9,982.000 TON		
0120	460.6224 HMA Pavement 4 MT 58-28 S	10,968.000 TON	i	
0122	460.6424 HMA Pavement 4 MT 58-28 H	345.000 TON	ii	
0124	465.0105 Asphaltic Surface	1,638.000 TON	i	
0126	465.0120 Asphaltic Surface Driveways and Field Entrances	45.000 TON		<u>.</u>
0128	465.0125 Asphaltic Surface Temporary	1,440.000 TON		
0130	465.0305 Asphaltic Surface Safety Islands	8.000 TON	;	<u>.</u>



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0132	465.0310 Asphaltic Curb	658.000 LF		
0134	465.0315 Asphaltic Flumes	368.000 SY		
0136	465.0400 Asphaltic Shoulder Rumble Strips	34,905.000 LF		
0138	501.1000.S Ice Hot Weather Concreting	15,655.000 LB		
0140	502.0100 Concrete Masonry Bridges	1,240.000 CY		
0142	502.3200 Protective Surface Treatment	1,701.000 SY	. <u></u>	
0144	503.0137 Prestressed Girder Type I 36W-Inch	1,028.000 LF	. <u></u>	<u>.</u>
0146	505.0400 Bar Steel Reinforcement HS Structures	19,880.000 LB	. <u></u>	
0148	505.0600 Bar Steel Reinforcement HS Coated Structures	189,140.000 LB		·
0150	505.0800.S Bar Steel Reinforcement HS Stainless Structures	3,060.000 LB		
0152	506.2605 Bearing Pads Elastomeric Non- Laminated	28.000 EACH	·	;
0154	506.4000 Steel Diaphragms (structure) 01. B-13- 0893	12.000 EACH		
0156	511.1300 Temporary Shoring (location) 01. R-13- 0371	1,665.000 SF	·	
0158	513.4091 Railing Tubular Screening	747.000 LF		
0160	516.0500 Rubberized Membrane Waterproofing	36.000 SY		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0162	517.1010.S Concrete Staining (structure) 01. B-13- 0893	10,551.000 SF	. <u> </u>	·
0164	517.1010.S Concrete Staining (structure) 02. R-13- 0370	2,222.000 SF		
0166	517.1010.S Concrete Staining (structure) 03. R-13- 0371	2,207.000 SF		
0168	517.1050.S Architectural Surface Treatment (structure) 01. B-13-0893	726.000 SF		
0170	517.1050.S Architectural Surface Treatment (structure) 02. R-13-0370	1,595.000 SF		
0172	517.1050.S Architectural Surface Treatment (structure) 03. R-13-0371	1,581.000 SF	<u>.</u>	·
0174	520.2012 Culvert Pipe Temporary 12-Inch	132.000 LF		
0176	520.2018 Culvert Pipe Temporary 18-Inch	62.000 LF	<u>.</u>	<u></u>
0178	520.2030 Culvert Pipe Temporary 30-Inch	42.000 LF	<u> </u>	<u></u>
0180	520.8000 Concrete Collars for Pipe	5.000 EACH		;
0182	520.8700 Cleaning Culvert Pipes	4.000 EACH	<u>.</u>	
0184	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	4.000 EACH		·
0186	521.1618 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 10 to 1	2.000 EACH	<u>.</u>	. <u> </u>
0190	522.0112 Culvert Pipe Reinforced Concrete Class III 12-Inch	24.000 LF	. <u></u>	·



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0192	522.0115 Culvert Pipe Reinforced Concrete Class III 15-Inch	18.000 LF		;
0194	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	370.000 LF		·
0196	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	82.000 LF		
0198	522.0142 Culvert Pipe Reinforced Concrete Class III 42-Inch	138.000 LF		<u>.</u>
0200	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	484.000 LF		
0202	522.0412 Culvert Pipe Reinforced Concrete Class IV 12-Inch	22.000 LF	·	·
0204	522.0415 Culvert Pipe Reinforced Concrete Class IV 15-Inch	32.000 LF		·
0206	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	214.000 LF		·
0208	522.0430 Culvert Pipe Reinforced Concrete Class IV 30-Inch	266.000 LF		;
0210	522.0524 Culvert Pipe Reinforced Concrete Class V 24-Inch	336.000 LF		<u>.</u>
0212	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	8.000 EACH		·
0214	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	4.000 EACH		i
0216	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	28.000 EACH		<u>.</u>



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Proposal ID: 20220712	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0218	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	17.000 EACH		·
0220	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	6.000 EACH		·
0222	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	5.000 EACH	·	
0224	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	5.000 EACH		
0226	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	7.000 EACH	. <u></u> .	<u>.</u>
0228	522.2329 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45- Inch	310.000 LF	·	
0230	522.2334 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53- Inch	122.000 LF		
0232	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	2.000 EACH		
0234	522.2634 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	2.000 EACH		
0236	524.0615 Apron Endwalls for Culvert Pipe Salvaged 15-Inch	2.000 EACH		
0238	530.0118 Culvert Pipe Corrugated Polyethylene 18-Inch	52.000 LF		·
0240	531.1100 Concrete Masonry Ancillary Structures Type NS	34.800 CY		·



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Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0242	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	4,298.000 LB		·
0244	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	1,100.000 LB	·	·
0246	531.2024 Drilling Shaft 24-Inch	149.000 LF	i	
0248	531.2036 Drilling Shaft 36-Inch	177.000 LF	i	
0250	531.2042 Drilling Shaft 42-Inch	36.000 LF	i	
0252	531.2048 Drilling Shaft 48-Inch	56.000 LF	i	
0254	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	i	
0256	531.5130 Foundation Single-Shaft Type MC-III (structure) 01. S-13-0559	1.000 EACH	·	·
0258	531.5130 Foundation Single-Shaft Type MC-III (structure) 02. S-13-0560	1.000 EACH		
0260	531.5340 Foundation Single-Shaft Type TC-IV (structure) 01. S-13-0562	1.000 EACH	·	·
0262	531.5340 Foundation Single-Shaft Type TC-IV (structure) 02. S-13-0564	1.000 EACH		. <u></u>
0264	531.5340 Foundation Single-Shaft Type TC-IV (structure) 03. S-13-0570	1.000 EACH		·
0266	531.5420 Foundation Single-Shaft Type TF-II (structure) 01. S-13-0561	2.000 EACH	. <u></u>	·
0268	531.6010 Foundation Two-Shaft Type FC-I (structure) 01. S-13-0569	1.000 EACH		



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0270	531.6020 Foundation Two-Shaft Type FC-II (structure) 01. S-13-0565	1.000 EACH		
0272	531.8990 Anchor Assemblies Poles on Structures	2.000 EACH		<u>.</u>
0274	532.5130 Monotube Cantilever Type III (structure) 01. S-13-0559	1.000 EACH		i
0276	532.5130 Monotube Cantilever Type III (structure) 02. S-13-0560	1.000 EACH	·	·
0278	532.5340 Truss Cantilever 2-Chord Type IV (structure) 01. S-13-0562	1.000 EACH	·	·
0280	532.5340 Truss Cantilever 2-Chord Type IV (structure) 02. S-13-0564	1.000 EACH		
0282	532.5340 Truss Cantilever 2-Chord Type IV (structure) 03. S-13-0570	1.000 EACH	·	·
0284	532.5400 Truss Full Span 2-Chord Type NS (structure) 01. S-13-0563	1.000 EACH	·	;;
0286	532.5420 Truss Full Span 2-Chord Type II (structure) 01. S-13-0561	1.000 EACH		;
0288	532.6010 Truss Cantilever 4-Chord Type I (structure) 01. S-13-0569	1.000 EACH		;
0290	532.6010 Truss Cantilever 4-Chord Type I (structure) 02. S-13-0571	1.000 EACH		
0292	532.6020 Truss Cantilever 4-Chord Type II (structure) 01. S-13-0565	1.000 EACH	·	·
0294	550.1100 Piling Steel HP 10-Inch X 42 Lb	5,292.000 LF		
0296	601.0405 Concrete Curb & Gutter 18-Inch Type A	866.000 LF	. <u></u>	<u>.</u>



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0298	601.0409 Concrete Curb & Gutter 30-Inch Type A	7,079.000 LF		
0300	601.0411 Concrete Curb & Gutter 30-Inch Type D	21,563.000 LF		
0302	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	557.000 LF		<u> </u>
0304	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	895.000 LF	·	·
0306	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	1,417.000 LF	·	·
0308	601.0600 Concrete Curb Pedestrian	392.000 LF		
0310	602.0405 Concrete Sidewalk 4-Inch	38,771.000 SF	i	
0312	602.0410 Concrete Sidewalk 5-Inch	22,533.000 SF	i	
0314	602.0415 Concrete Sidewalk 6-Inch	2,855.000 SF	·	·
0316	602.0515 Curb Ramp Detectable Warning Field Natural Patina	636.000 SF		
0318	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	58.000 SF		
0320	603.1142 Concrete Barrier Type S42	5,864.000 LF		
0322	603.8000 Concrete Barrier Temporary Precast Delivered	5,225.000 LF	·	
0324	603.8125 Concrete Barrier Temporary Precast Installed	5,350.000 LF	·	
0326	604.0400 Slope Paving Concrete	49.000 SY		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0328	606.0200 Riprap Medium	997.000 CY		
0330	606.0300 Riprap Heavy	166.000 CY	<u> </u>	<u></u>
0332	608.0115 Relaid Storm Sewer 15-Inch	104.000 LF		<u> </u>
0334	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	1,284.000 LF		
0336	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	1,000.000 LF		·
0338	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	561.000 LF		·
0342	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	506.000 LF		·
0344	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	1,935.000 LF		
0346	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	743.000 LF		·
0348	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	602.000 LF		
0350	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	243.000 LF		;
0352	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	239.000 LF		;
0354	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	227.000 LF	<u>.</u>	·
0356	608.0448 Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	767.000 LF		



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0358	611.0535 Manhole Covers Type J-Special	28.000 EACH		·
0360	611.0610 Inlet Covers Type BW	18.000 EACH		
0362	611.0624 Inlet Covers Type H	89.000 EACH		
0364	611.0627 Inlet Covers Type HM	3.000 EACH		
0366	611.0636 Inlet Covers Type HM-S	3.000 EACH	. <u></u>	·
0368	611.0639 Inlet Covers Type H-S	45.000 EACH		
0370	611.0642 Inlet Covers Type MS	16.000 EACH		
0372	611.0652 Inlet Covers Type T	11.000 EACH		
0374	611.2005 Manholes 5-FT Diameter	7.000 EACH		
0376	611.3004 Inlets 4-FT Diameter	14.000 EACH		
0378	611.3225 Inlets 2x2.5-FT	15.000 EACH	. <u></u>	
0380	611.3230 Inlets 2x3-FT	57.000 EACH		
0382	611.3901 Inlets Median 1 Grate	2.000 EACH		
0384	611.3902 Inlets Median 2 Grate	7.000 EACH		
0386	611.8120.S Cover Plates Temporary	8.000 EACH		
0388	611.9800.S Pipe Grates	18.000 EACH		i
0390	612.0106 Pipe Underdrain 6-Inch	12,224.000 LF		



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0392	612.0206 Pipe Underdrain Unperforated 6-Inch	17.000 LF		·
0394	612.0406 Pipe Underdrain Wrapped 6-Inch	390.000 LF		
0396	614.0220 Steel Thrie Beam Bullnose Terminal	2.000 EACH		
0398	614.0230 Steel Thrie Beam	226.600 LF		·
0400	614.0905 Crash Cushions Temporary	5.000 EACH		
0402	614.2300 MGS Guardrail 3	283.000 LF		
0404	614.2500 MGS Thrie Beam Transition	236.000 LF	ii	
0406	614.2610 MGS Guardrail Terminal EAT	6.000 EACH		·
0408	616.0100 Fence Woven Wire (height) 01. 4-FT	10,780.000 LF	i	
0410	616.0350.S Gates Wood Single Leaf (length) 01. 16- FT	1.000 EACH		
0412	616.0406 Fence Chain Link Salvaged 6-FT	880.000 LF		
0414	616.0700.S Fence Safety	6,590.000 LF		
0416	618.0100 Maintenance And Repair of Haul Roads (project) 01. 3080-01-40	1.000 EACH		
0418	618.0100 Maintenance And Repair of Haul Roads (project) 02. 3080-01-75	1.000 EACH		
0420	618.0100 Maintenance And Repair of Haul Roads (project) 03. 3080-01-76	1.000 EACH		·
0422	619.1000 Mobilization	1.000 EACH		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0424	620.0300 Concrete Median Sloped Nose	714.000 SF		
0426	623.0200 Dust Control Surface Treatment	241,423.000 SY		
0428	624.0100 Water	1,156.000 MGAL		
0430	625.0500 Salvaged Topsoil	376,490.000 SY		·
0432	627.0200 Mulching	236,161.000 SY		
0434	628.1504 Silt Fence	6,079.000 LF		
0436	628.1520 Silt Fence Maintenance	6,079.000 LF		
0438	628.1905 Mobilizations Erosion Control	19.000 EACH		·
0440	628.1910 Mobilizations Emergency Erosion Control	19.000 EACH		·
0442	628.2004 Erosion Mat Class I Type B	71,628.000 SY		. <u></u>
0444	628.2008 Erosion Mat Urban Class I Type B	42,585.000 SY	. <u> </u>	
0446	628.2023 Erosion Mat Class II Type B	28,485.000 SY		. <u></u>
0448	628.7005 Inlet Protection Type A	233.000 EACH	. <u> </u>	
0450	628.7010 Inlet Protection Type B	27.000 EACH		. <u></u>
0452	628.7015 Inlet Protection Type C	159.000 EACH		
0454	628.7020 Inlet Protection Type D	28.000 EACH	. <u></u>	. <u></u>
0456	628.7504 Temporary Ditch Checks	1,087.000 LF		



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Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0458	628.7555 Culvert Pipe Checks	190.000 EACH		
0460	628.7560 Tracking Pads	10.000 EACH		. <u> </u>
0462	628.7570 Rock Bags	120.000 EACH		
0464	629.0205 Fertilizer Type A	251.200 CWT		
0466	630.0110 Seeding Mixture No. 10	1,698.000 LB	. <u></u>	
0468	630.0120 Seeding Mixture No. 20	2,750.000 LB		. <u></u>
0470	630.0130 Seeding Mixture No. 30	2,653.000 LB		
0472	630.0140 Seeding Mixture No. 40	353.000 LB		
0474	630.0200 Seeding Temporary	10,651.000 LB	. <u></u>	
0476	630.0500 Seed Water	18,563.000 MGAL		
0478	631.1000 Sod Lawn	72.000 SY		
0480	631.1100 Sod Erosion Control	34.000 SY		. <u></u>
0482	633.0100 Delineator Posts Steel	89.000 EACH		
0484	633.0500 Delineator Reflectors	117.000 EACH		
0486	633.1000 Delineators Barrier Wall	31.000 EACH		·
0488	633.5200 Markers Culvert End	69.000 EACH		·
0490	634.0612 Posts Wood 4x6-Inch X 12-FT	5.000 EACH		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0492	634.0614 Posts Wood 4x6-Inch X 14-FT	95.000 EACH		
0494	634.0616 Posts Wood 4x6-Inch X 16-FT	45.000 EACH	. <u></u>	
0496	634.0618 Posts Wood 4x6-Inch X 18-FT	48.000 EACH	. <u></u>	
0498	634.0620 Posts Wood 4x6-Inch X 20-FT	4.000 EACH	. <u></u>	
0500	634.0622 Posts Wood 4x6-Inch X 22-FT	2.000 EACH	. <u></u>	
0502	635.0200 Sign Supports Structural Steel HS	8,241.000 LB	. <u></u>	
0504	637.0620 Sign Flags Permanent Type II	70.000 EACH	. <u></u>	
0506	637.1220 Signs Type I Reflective SH	2,727.500 SF		
0508	637.2210 Signs Type II Reflective H	1,304.180 SF		
0510	637.2220 Signs Type II Reflective SH	13.500 SF		
0512	637.2230 Signs Type II Reflective F	400.500 SF		
0514	638.2102 Moving Signs Type II	40.000 EACH	. <u></u>	
0516	638.2602 Removing Signs Type II	110.000 EACH		
0518	638.3000 Removing Small Sign Supports	101.000 EACH	. <u></u>	
0520	640.1303.S Pond Liner Clay	26,680.000 CY		
0522	642.5401 Field Office Type D	1.000 EACH		
0524	643.0300 Traffic Control Drums	112,658.000 DAY		



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0526	643.0420 Traffic Control Barricades Type III	8,064.000 DAY		
0528	643.0500 Traffic Control Flexible Tubular Marker Posts	15.000 EACH	·	;
0530	643.0600 Traffic Control Flexible Tubular Marker Bases	15.000 EACH		
0532	643.0705 Traffic Control Warning Lights Type A	16,118.000 DAY		ii
0534	643.0715 Traffic Control Warning Lights Type C	8,403.000 DAY		i
0536	643.0800 Traffic Control Arrow Boards	831.000 DAY	<u>.</u>	·
0538	643.0900 Traffic Control Signs	55,928.000 DAY		·
0540	643.0910 Traffic Control Covering Signs Type I	10.000 EACH		i
0542	643.1000 Traffic Control Signs Fixed Message	220.000 SF	<u>.</u>	i
0544	643.1050 Traffic Control Signs PCMS	426.000 DAY		i
0546	643.5000 Traffic Control	1.000 EACH		i
0548	644.1810 Temporary Pedestrian Barricade	42.000 LF		i
0550	645.0111 Geotextile Type DF Schedule A	6,128.000 SY		
0552	645.0120 Geotextile Type HR	2,801.000 SY		
0554	645.0135 Geotextile Type SR	4,600.000 SY	<u>.</u>	<u>.</u>
0556	645.0220 Geogrid Type SR	9,700.000 SY	. <u> </u>	



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0558	646.1020 Marking Line Epoxy 4-Inch	43,181.000 LF	·	
0560	646.1040 Marking Line Grooved Wet Ref Epoxy 4- Inch	47,680.000 LF	·	;
0562	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	4,890.000 LF		;;
0564	646.3020 Marking Line Epoxy 8-Inch	4,608.000 LF	<u>.</u>	<u>.</u>
0566	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	5,212.000 LF	·	
0568	646.5020 Marking Arrow Epoxy	33.000 EACH		
0570	646.6120 Marking Stop Line Epoxy 18-Inch	26.000 LF		
0572	646.6320 Marking Dotted Extension Epoxy 18-Inch	354.000 LF	. <u></u> .	
0574	646.6464 Cold Weather Marking Epoxy 4-Inch	4,812.000 LF	. <u></u>	. <u></u>
0576	646.7120 Marking Diagonal Epoxy 12-Inch	680.000 LF	. <u></u>	
0578	646.7220 Marking Chevron Epoxy 24-Inch	711.000 LF	. <u></u>	
0580	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	865.000 LF	·	·
0582	646.8120 Marking Curb Epoxy	96.000 LF	. <u></u>	
0584	646.8220 Marking Island Nose Epoxy	7.000 EACH	. <u></u>	
0586	646.9000 Marking Removal Line 4-Inch	15,405.000 LF	. <u></u>	. <u></u>
0588	646.9100 Marking Removal Line 8-Inch	200.000 LF	·	



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0590	646.9200 Marking Removal Line Wide	16.000 LF		
0592	646.9300 Marking Removal Special Marking	2.000 EACH		
0594	649.0105 Temporary Marking Line Paint 4-Inch	18,520.000 LF		
0596	649.0120 Temporary Marking Line Epoxy 4-Inch	2,990.000 LF	i	
0598	649.0150 Temporary Marking Line Removable Tape 4-Inch	22,755.000 LF		·
0600	649.0220 Temporary Marking Line Epoxy 8-Inch	200.000 LF		
0602	649.0250 Temporary Marking Line Removable Tape 8-Inch	880.000 LF		·
0604	649.0520 Temporary Marking Arrow Epoxy	2.000 EACH		
0606	649.0760 Temporary Marking Raised Pavement Marker Type I	102.000 EACH	. <u></u>	<u> </u>
0608	649.0820 Temporary Marking Stop Line Epoxy 18- Inch	44.000 LF		
0610	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	74.000 LF		
0612	649.0960 Temporary Marking Removable Mask Out Tape 6-Inch	40.000 LF		
0614	652.0125 Conduit Rigid Metallic 2-Inch	32.000 LF		
0616	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	14,326.000 LF	;	
0618	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,142.000 LF		



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0620	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	445.000 LF	. <u> </u>	·
0622	652.0700.S Install Conduit into Existing Item	1.000 EACH	. <u></u>	
0624	653.0140 Pull Boxes Steel 24x42-Inch	72.000 EACH		
0626	653.0222 Junction Boxes 18x12x6-Inch	2.000 EACH	. <u></u>	·
0628	654.0105 Concrete Bases Type 5	32.000 EACH		
0630	654.0230 Concrete Control Cabinet Bases Type L30	4.000 EACH		·
0632	655.0515 Electrical Wire Traffic Signals 10 AWG	5,575.000 LF		·
0634	655.0610 Electrical Wire Lighting 12 AWG	13,116.000 LF	. <u></u>	·
0636	655.0615 Electrical Wire Lighting 10 AWG	23,862.000 LF		
0638	655.0620 Electrical Wire Lighting 8 AWG	34,730.000 LF		
0640	655.0625 Electrical Wire Lighting 6 AWG	20,649.000 LF		
0642	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. 325+31.89 'MP'	LS	LUMP SUM	
0644	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. 393+42.75 'MP'	LS	LUMP SUM	
0646	656.0200 Electrical Service Meter Breaker Pedestal (location) 03. 393+56.17'MP'	LS	LUMP SUM	·
0648	656.0200 Electrical Service Meter Breaker Pedestal (location) 04. 517+01.78'NB'	LS	LUMP SUM	



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0650	656.0200 Electrical Service Meter Breaker Pedestal (location) 05. CCTV130188	LS	LUMP SUM	·
0652	656.0500 Electrical Service Breaker Disconnect Box (location) 01. CCTV1301888	LS	LUMP SUM	
0654	657.0255 Transformer Bases Breakaway 11 1/2- Inch Bolt Circle	90.000 EACH	·	·
0656	657.0322 Poles Type 5-Aluminum	34.000 EACH		<u>.</u>
0658	657.0615 Luminaire Arms Single Member 4 1/2- Inch Clamp 8-FT	42.000 EACH	·	
0660	657.0715 Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	53.000 EACH	·	
0662	659.1115 Luminaires Utility LED A	42.000 EACH		
0664	659.1120 Luminaires Utility LED B	53.000 EACH		·
0666	659.2230 Lighting Control Cabinets 240/480 30- Inch	4.000 EACH		·
0668	670.0100 Field System Integrator	LS	LUMP SUM	i
0670	670.0200 ITS Documentation 01. 3080-01-40	LS	LUMP SUM	
0672	670.0200 ITS Documentation 02. 3080-01-76	LS	LUMP SUM	
0674	671.0112 Conduit HDPE 1-Duct 2-Inch	2,745.000 LF		
0676	671.0212 Conduit HDPE Directional Bore 1-Duct 2- Inch	2,375.000 LF		·
0678	673.0105 Communication Vault Type 1	4.000 EACH		



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SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0680	673.0200 Tracer Wire Marker Posts	4.000 EACH	i	i
0682	673.1225.S Install Pole Mounted Cabinet	1.000 EACH		
0684	674.0300 Remove Cable	5,310.000 LF	ii	
0686	674.0400 Reinstall Cable	3,860.000 LF	ii	
0688	677.0150 Install Camera Pole 50-FT	1.000 EACH	ii	
0690	677.0200 Install Camera Assembly	1.000 EACH	i	
0692	678.0006 Install Fiber Optic Cable Outdoor Plant 6- CT	835.000 LF		·
0694	678.0024 Install Fiber Optic Cable Outdoor Plant 24-CT	1,330.000 LF		
0696	678.0200 Fiber Optic Splice Enclosure	2.000 EACH	ii	
0698	678.0300 Fiber Optic Splice	104.000 EACH		
0700	678.0400 Fiber Optic Termination	6.000 EACH	ii	i
0702	678.0500 Communication System Testing 01. 3080-01-40	LS	LUMP SUM	
0704	678.0500 Communication System Testing 02. 3080-01-76	LS	LUMP SUM	
0706	678.0600 Install Ethernet Switches	1.000 EACH	i	
0708	690.0150 Sawing Asphalt	4,072.000 LF	ii	
0710	690.0250 Sawing Concrete	13,057.000 LF	i	



Wisconsin Department of Transportation

Proposal Schedule of Items		Page 24 of 30
Proposal ID: 20220712	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0712	715.0502 Incentive Strength Concrete Structures	7,440.000 DOL	1.00000	7,440.00
0714	715.0603 Incentive Strength Concrete Barrier	2,935.000 DOL	1.00000	2,935.00
0716	715.0720 Incentive Compressive Strength Concrete Pavement	8,644.000 DOL	1.00000	8,644.00
0718	740.0440 Incentive IRI Ride	8,711.000 DOL	1.00000	8,711.00
0720	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,400.000 HRS	5.00000	12,000.00
0722	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	3,200.000 HRS	5.00000	16,000.00
0724	SPV.0005 Special 01. Pre-Planting Vegetation Treatment	2.800 ACRE	·	
0726	SPV.0005 Special 02. Seed Bed Preparation	2.800 ACRE	<u>_</u>	
0728	SPV.0045 Special 01. Temporary Portable Rumble Strip Arrays Non-flagging	48.000 DAY		;
0730	SPV.0060 Special 01. Construct LB-3 Base	58.000 EACH	. <u></u>	<u>.</u>
0732	SPV.0060 Special 02. Poles 30-Foot 11 Gauge Simplex	58.000 EACH		
0734	SPV.0060 Special 03. Ground Rod	1.000 EACH	. <u></u>	<u>.</u>
0736	SPV.0060 Special 04. CIP Inlet 4	20.000 EACH		<u>.</u>
0738	SPV.0060 Special 05. CIP Inlet 2X3	43.000 EACH	. <u></u>	<u>.</u>
0740	SPV.0060 Special 06. CIP Manhole 6X6	10.000 EACH		



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Proposal Schedule of Items		Page 25 of 30
Proposal ID: 20220712	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0742	SPV.0060 Special 07. CIP Inlet SP	6.000 EACH		
0744	SPV.0060 Special 08. Salvage and Replace Pipe Underdrain Endwall	63.000 EACH	. <u></u>	·
0746	SPV.0060 Special 09. Removing Communication Vault	3.000 EACH	. <u></u>	·
0752	SPV.0060 Special 12. Outlet Control Structure Pond C	1.000 EACH	. <u></u>	
0754	SPV.0060 Special 13. Orifice Plate Restrictor 6-Inch	1.000 EACH	<u>.</u>	
0756	SPV.0060 Special 14. Outlet Control Structure Pond D	1.000 EACH		·
0758	SPV.0060 Special 15. Settlement Gauge	5.000 EACH		
0760	SPV.0060 Special 16. Temporary Connection to Existing Storm Sewer	4.000 EACH		·
0762	SPV.0060 Special 17. Reconstructing Inlets Median 2 Grate	3.000 EACH	. <u></u>	
0764	SPV.0060 Special 19. Fence Gate Salvaged	2.000 EACH		ii
0766	SPV.0060 Special 20. Native Seed Surveillance and Care Cycles	8.000 EACH		
0768	SPV.0060 Special 21. Dewatering for Pond A	1.000 EACH		
0770	SPV.0060 Special 22. Dewatering for Pond B	1.000 EACH	<u>.</u>	
0772	SPV.0060 Special 23. Dewatering for Pond EX-S	1.000 EACH	<u>.</u>	
0774	SPV.0060 Special 24. Dewatering for Pond EX-N	1.000 EACH	<u>.</u>	



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Proposal Schedule of Items		Page 26 of 30
Proposal ID: 202207120	001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0776	SPV.0060 Special 25. Dewatering for County Pond	1.000 EACH		
0778	SPV.0060 Special 26. Project Dewatering, ID 3080- 01-40	1.000 EACH		·
0780	SPV.0060 Special 27. Project Dewatering, ID 3080- 01-76	1.000 EACH	·	i
0782	SPV.0060 Special 30. Install City Provided Sign	38.000 EACH		
0784	SPV.0060 Special 31. Precast Sign Post Base	23.000 EACH	. <u></u>	
0786	SPV.0060 Special 32. Sign Post Base For Concrete Installation	4.000 EACH		·
0788	SPV.0060 Special 33. Temporary Lighting System Millpond Road Intersection	1.000 EACH	·	·
0790	SPV.0060 Special 34. Survey Project 3080-01-40	1.000 EACH		
0792	SPV.0060 Special 35. Survey Project 3080-01-75	1.000 EACH		
0794	SPV.0060 Special 36. Survey Project 3080-01-76	1.000 EACH	. <u></u> .	
0796	SPV.0060 Special 37. Waste Water Control	1.000 EACH		
0798	SPV.0060 Special 38. Reconstruct Bench and Flowlines	1.000 EACH	·	·
0800	SPV.0060 Special 39. Utility Line Opening (ULO)	20.000 EACH	. <u></u>	
0802	SPV.0060 Special 40. Construction Staking for Sanitary Sewer	1.000 EACH		·
0804	SPV.0060 Special 41. Sewer Electronic Markers	3.000 EACH		



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Proposal ID: 2022071	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0806	SPV.0060 Special 42. Sanitary Sewer Tap	2.000 EACH		
0808	SPV.0060 Special 43. Sanitary Sewer Access Structure (4-FT Diameter)	21.000 EACH		
0810	SPV.0060 Special 44. Sanitary Sewer Access Structure (5-FT Diameter)	1.000 EACH	·	
0812	SPV.0060 Special 45. Sanitary Sewer Internal Chimney Seal	4.000 EACH	·	·
0814	SPV.0060 Special 46. External Sanitary Sewer Access Structure Joint Seal	20.000 EACH		;
0816	SPV.0060 Special 47. Adjust Sewer Access Structure Special	3.000 EACH	·	·
0818	SPV.0060 Special 48. Reconstruct MMSD Sanitary Sewer Structure	1.000 EACH		
0820	SPV.0060 Special 49. Abandon Sanitary Sewer - Pipe Plug	6.000 EACH	·	;
0822	SPV.0060 Special 50. Construction Staking for Water Main	1.000 EACH		
0824	SPV.0060 Special 51. Water Valve 6-Inch	17.000 EACH	i	<u>.</u>
0826	SPV.0060 Special 52. Water Valve 8-Inch	4.000 EACH		
0828	SPV.0060 Special 53. Water Valve 12-Inch	22.000 EACH		
0830	SPV.0060 Special 54. Hydrant	17.000 EACH		
0832	SPV.0060 Special 55. Salvage and Relocate Hydrant and Valve	2.000 EACH		



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	Proposal Schedule of Items					
Proposal ID: 20220712	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76					
	Federal ID(s): N/A, WISC 2022450, WISC 2022451					
SECTION: 0001	Contract Items					
Alt Set ID:	Alt Mbr ID:					

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0834	SPV.0060 Special 56. Remove Hydrant and Valve	3.000 EACH		
0836	SPV.0060 Special 57. Adjust Water Valve Box Sections	9.000 EACH		·
0838	SPV.0060 Special 58. Connect to Existing Water System	3.000 EACH	. <u></u>	
0840	SPV.0060 Special 59. Abandon Water Valve	2.000 EACH	·	
0842	SPV.0060 Special 60. Abandon Existing Water Main	3.000 EACH	·	
0844	SPV.0060 Special 61. Cap Existing Water Main	1.000 EACH		
0846	SPV.0060 Special 62. Water Utility Line Opening	2.000 EACH		
0848	SPV.0060 Special 64. Water Main Insulation	27.000 EACH		
0850	SPV.0060 Special 65. Clay Anti-Seep Collar	6.000 EACH	<u>.</u>	
0852	SPV.0060 Special 66. Landmark Reference Monuments Special	1.000 EACH	·	·
0854	SPV.0085 Special 01. Seeding Native Pollinator Mix Upland	42.000 LB		·
0856	SPV.0085 Special 02. Seeding Native Pollinator Mix Swale	42.000 LB	·	·
0858	SPV.0090 Special 01. Compost Tubes	1,712.000 LF	. <u></u>	. <u></u>
0860	SPV.0090 Special 02. Sign Posts	282.000 LF		
0862	SPV.0090 Special 03. Temporary Rumble Strip (Orange) in Advance of Lane Closure	1,836.000 LF	·	·



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Proposal ID: 2022071200	1 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0864	SPV.0090 Special 40. Sanitary Sewer Pipe SDR 26 8-Inch	388.000 LF	. <u> </u>	
0866	SPV.0090 Special 41. Sanitary Sewer Pipe SDR 26 15-Inch	3,501.000 LF	;	<u>.</u>
0868	SPV.0090 Special 42. Select Fill for Sanitary Sewer	6,806.000 LF	<u>.</u>	
0870	SPV.0090 Special 43. Sanitary Sewer Pipe PVC 10-Inch with Casing	234.000 LF	·	·
0872	SPV.0090 Special 44. Sanitary Sewer Pipe PVC 15-Inch with Casing	208.000 LF		·
0874	SPV.0090 Special 45. Utility Trench Patch Type III	605.000 LF	<u>.</u>	<u>.</u>
0876	SPV.0090 Special 46. Sanitary Sewer Pipe SDR 35 8-Inch	102.000 LF	·	·
0878	SPV.0090 Special 47. Sanitary Sewer Pipe SDR 35 15-Inch	2,373.000 LF	·	·
0880	SPV.0090 Special 50. Water Main 6-Inch	282.000 LF		
0882	SPV.0090 Special 51. Water Main 8-Inch	429.000 LF		
0884	SPV.0090 Special 52. Water Main 12-Inch	6,595.000 LF	. <u></u>	·
0886	SPV.0090 Special 53. Casing Pipe 24-Inch	341.000 LF	<u>.</u>	
0888	SPV.0165 Special 01. Wall Concrete Panel Mechanically Stabilized Earth R-13-370	2,041.000 SF	·	<u>.</u>
0890	SPV.0165 Special 02. Wall Concrete Panel Mechanically Stabilized Earth R-13-371	2,026.000 SF	·	·
0892	SPV.0195 Special 01. 3-Inch Clear Stone	4.500 TON	·	



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Proposal ID: 20220712	2001 Project(s): 3080-01-40, 3080-01-75, 3080-01-76	
	Federal ID(s): N/A, WISC 2022450, WISC 2022451	
SECTION: 0001	Contract Items	
Alt Set ID:	Alt Mbr ID:	

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0894	SPV.0200 Special 40. Construct Inside Drop 8-Inch	14.820 VF		
0896	520.1012 Apron Endwalls for Culvert Pipe 12-Inch	1.000 EACH		·
0898	520.1018 Apron Endwalls for Culvert Pipe 18-Inch	14.000 EACH		
0900	520.1024 Apron Endwalls for Culvert Pipe 24-Inch	4.000 EACH		
0902	520.1030 Apron Endwalls for Culvert Pipe 30-Inch	2.000 EACH		
0904	520.3318 Culvert Pipe Class III-A 18-Inch	174.000 LF		
0906	520.3324 Culvert Pipe Class III-A 24-Inch	174.000 LF		
0908	608.3012 Storm Sewer Pipe Class III-A 12-Inch	594.000 LF		
0910	608.3018 Storm Sewer Pipe Class III-A 18-Inch	391.000 LF		
0912	608.3024 Storm Sewer Pipe Class III-A 24-Inch	97.000 LF		
0914	608.3030 Storm Sewer Pipe Class III-A 30-Inch	124.000 LF		
0916	SPV.0060 Special 67. CIP Outlet Control Structure Pond A	1.000 EACH		
0918	SPV.0060 Special 68. CIP Outlet Control Structure Pond B	1.000 EACH		
	Section: 000	D1	Total:	

Total Bid:



Facilities Development Manual Chapter 19 Plans, Specifications, and Estimates Section 25 Local Force Account Agreements Wisconsin Department of Transportation

FDM 19-25-1 General

June 24, 2016

The department has developed five types of agreements for the administration of force accounts as defined in <u>FDM 3-5-10</u>. This section will address only Local Force Account (LFA) Agreements.

The Utility and Railroad Agreements are covered in Chapters 17 and 18 respectively and do not require a PS&E submitted to the Proposal Management Section.

The LFA Agreements on the STH System are handled by the Traffic Systems Unit in the Bureau of Traffic Operations (BTO). If a PS&E is required it shall be submitted to the Traffic Systems Unit in the BTO.

FDM 19-25-5 Local Force Account (LFA) Agreements

June 24, 2016

LFA agreements are used in the following circumstances.

- When a county or other unit of government does work on their own road system.
- When a county or other unit of government does work on the state trunk highway system for WisDOT.
- When a county or other unit of government does work financed with state or federal funds on a connecting highway.

The county or local unit of government estimates the costs of equipment, labor and materials in advance and must be determined to be cost effective in order to perform the work under the agreement. The local units of government are reimbursed for the actual costs of equipment, labor and materials incurred in performing the work up to an agreement maximum (as amended by any change orders). These agreements cannot result in profit or loss for the unit of government performing the work. Any state, local or federal funding program for which the project is eligible may be used with this agreement type.

<u>FDM 3-5-10</u> contain information about LFA agreements and Cost Effectiveness Findings necessary to develop an LFA agreement. The individual agreement and its effect on the region's program should be compared to the limitations set forth in the policy presented in <u>FDM 3-5 Attachment 10.1</u>. The plan letter must state that the submitted agreement is within the policy guidelines or furnish the date of approval for exceptions to the stated policy and that a CEF has been approved for the agreement. The plan letter shall also list the agreement's actual cost and any excluded costs.

5.1 Agreement Contents

The agreement for all LFA projects that require a PS&E to be submitted to Central Office consists of the following components:

- The completed Agreement for Construction by LFA (Form <u>DT2056</u> see <u>Attachment 5.1</u>). NOTE: the Agreement amount shown on this form does not include engineering & contingencies.
- For federally funded LFAs, include a <u>standard insert</u> for Federal-Aid LFA's as shown in <u>Attachment</u> <u>5.2</u>. This should be attached to the DT2056 prior to any signatures and should remain attached to all signed copies of the DT2056 since these are conditions of the signed agreement.
- The special provisions.

The informational blanks at the top of Form <u>DT2056</u> shall be completed and two copies shall be signed by the appropriate authorized individuals such as the County Highway Commissioner and County Highway Committee or such as the mayor and city council and the Region Project Development Section Manager before the PS&E or Agreement is sent to the BPD.

Form DT2056 is available on the Internet. Look under "Plans and projects."

Agreements of \$5000 or less are approved by the Region Project Development Section for the State of Wisconsin and a signed copy is sent directly to the BFS to obligate the funding. See <u>FDM 3-5-10</u> for additional requirements.

5.2 PS&E Composition

The hard copy exhibits for a LFA (Local) PS&E are as shown in <u>Attachment 5.5</u>. In addition to the <u>Attachment 5.5</u> exhibits, a Final Cost Analysis to justify the Agreement cost is required. NOTE: Engineering and Contingencies are not included in the cost analysis.

5.2.1 Final Cost Analysis

The Final Cost Analysis for LFA agreements are prepared by the county or local unit of government. The final cost analysis consists of two parts.

- 1. A series of Item Unit Cost Analyses showing costs for equipment, labor and materials for individual items of work to be performed under the Agreement. See Attachment 5.3 for an example. See FDM 3-5-10 for additional information for developing a cost analysis.
- 2. A Project Unit Cost Analysis, which is a summary of the individual Item Unit Cost Analyses. See Attachment 5.4 for an example.

Realistic cost estimates are required because reimbursement of incurred costs will be limited to the total estimated agreement cost unless supported and authorized by a change order, approved prior to the performance of the work.

The total cost is based on estimated cost of all equipment, labor, materials, and incidental costs as herein described.

5.2.2 Counties

The rates for equipment used by the county are established annually under the Cost Agreement between the department and the county. The Cost Agreement is available from the BHO.

The labor rates are those rates currently paid by the county for similar work in the county plus a fringe benefit rate which is established annually for each county.

The county can uniformly charge a percentage for field small tools to all field labor (wages plus benefits). The percentage is calculated annually by the county and is effective for one year. Rates are set to the nearest tenth of one percent. There is no longer a minimum 1% charge for small tools to be used by any local unit not providing actual cost information or when the actual cost provided is calculated to be less than 1%.

The material costs are the estimated cost of materials to be furnished by the County.

The rate for administrative support provided by the counties are established annually under the Cost Agreement between the department and counties and are applied to the total amounts invoiced under the annual agreement for labor (including fringe benefits and patrol supervision), machinery, and materials. Contact the regional Local Program Project Manager for the current administrative support rate.

5.2.3 Local Units other than Counties

For local units other than counties, the municipality will have to prepare and submit a cost allocation plan in accordance with OMB CFR 200. This plan will be submitted to WisDOT for review and approval on an annual basis. In lieu of a full cost allocation plan, a municipality may submit an "only fringe benefit cost allocation plan" for reimbursement. If equipment costs are to be reimbursed, the municipality will be required to invoice using industry standard "Blue Book" rates. Equipment rate reimbursement using Chapter 5.55 (WisDOT Highway Maintenance Manual) rates may be approved on a case-by-case basis.

5.3 PS&E Submittal

Send the PS&E for an LFA (Local) project to the Bureau of Project Development, Proposal Management Section, Room 694 Hill Farms as shown in FDM 19-10-1.

Send the PS&E for an LFA (State, or Connecting Highway) project to the Bureau of Traffic Operations, Traffic Systems Unit, 433 W. St. Paul Avenue, Suite 300, Milwaukee, WI.

5.4 PS&E Approval

At the time the accepted PS&E is forwarded for processing, the Region will be notified (using email) that the PS&E is approved.

LIST OF ATTACHME	INTS
Attachment 5.1	DT2056 Agreement for Construction, Local Force Account
Attachment 5.2	Additional Provisions for Federal-Aid Force Accounts
Attachment 5.3	Item Unit Cost Analysis
Attachment 5.4	Project Unit Cost Analysis
Attachment 5.5	PS & E Exhibit Distribution Chart for Local LFA Contracts

FDM 19-25-10 Special Provisions

10.1 General Requirements

LFA agreements should contain the following special provisions (see Section 15 of this chapter):

- General (<u>FDM 19-15-5</u>)
- Scope of Work (FDM 19-15-10)
- Traffic (FDM 19-15-20)
- Type of Work

They should also include the following special provisions as applicable to the nature or location of the work:

- Prosecution and Progress
- Utilities (FDM 19-15-25)
- Other Contracts (FDM 19-15-26)
- Relations with Railroads and Information to Bidders (FDM 19-15-35)
- Environmental Protection (FDM 19-15-55)
- Non-standard work items (Do not include bid item numbers)
- STSP work items (Bid item numbers are not required)

The remaining items of Section 15 are rarely applicable to these contracts.

LIST OF ATTACHMENTS

Attachment 10.1 Sample Special Provision for a Local Force Account Agreement

Attachment 10.2 Sample Special Provision for a Local Force Account Agreement

Attachment 10.3 Required Non-discrimination Provision for Federal-Aid Contracts

LFA Obtain a working copy of this form at: https://wisconsindot.gov/Pages/global-footer/formdocs/default.aspx

AGREEMENT FOR CONSTRUCTION – Local Force Account

Wisconsin Department of Transportation DT2056 7/2012

Project ID 1234-56-78	Agreement Amount \$44,420.18	Agreement between WisDOT and Local Governmental Unit (also must be doing the work)		
Federal Project ID WISC		Municipality City of		
Road Name Black Hawk Trail Markers		☐ Only of ☐ Village of ☐ Town of		
Highway Various	County (where work performed) Vernon/Crawford	County of Vernon		
Work on STH System – S (CEF to BHO, Agreement to BH		Work on Local Units System (CEF to DTSD Region, Agreement to BPD)		
Work on STH System – N (CEF to BHO, Agreement to BH				
Type of Work	·			
Grade, Base, Surface and La	andscape			
Approximate Start Work Date	-	Approximate Stop Work Date		
May 1, 2005		September 1, 2005		

This agreement is made and entered into by and between the Wisconsin Department of Transportation, designated the "Department", and the above-identified county or municipality, designated the "Local Governmental Unit", represented by its designees for constructing the above-specified project. The Department finds and determines that it is more feasible and advantageous for highway purposes to construct the identified project with the Local Governmental Unit's organization, forces and equipment. The Department and Local Governmental Unit mutually agree to the provisions on the attached pages, which are made a part of this agreement.

RECOMMENDED FOR APPROVAL

n Departr
d for the
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sin)
)e

For Wisconsin Department of Transportation

for the State of Wisconsin

(Date)

(Date)

(Date)

(Date)

The Local Governmental Unit agrees to construct the described project in accordance with the requirements of the Department, the approved plans when required for such project, in accordance with the Standard Specifications for Road and Bridge Construction and approved supplements as may be applicable, and in accordance with the special provisions made a part of this agreement. The word "contractor" as used in the specifications and special provisions shall, when applicable, be deemed to mean the Local Governmental Unit.

The provisions of Subsection 108.11 of the Standard Specifications, Liquidated Damages, are deleted from this agreement.

The Local Governmental Unit is authorized by the Department and agrees to provide for the purchase, delivery, and storing of all materials required except those excluded from this agreement, the furnishing or necessary rental of all equipment and small tools, and the furnishing of all labor necessary to expeditiously complete the work, and to pay all costs incurred pursuant to this agreement.

The Department agrees to reimburse the Local Governmental Unit for actual costs of equipment, labor and materials incurred in performing the work up to the agreement amount or as amended by agreement change orders.

The Department agrees to pay to the Local Governmental Unit and the Local Governmental Unit agrees to accept in full, settlement for the work performed under this agreement:

- The actual cost of labor, at rates currently paid by the Local Governmental Unit for similar work in the area, materials and incidental expense furnished or incurred by the Local Governmental Unit pursuant to this agreement, such payment to be based on a Detailed Statement of Expenditures, submitted monthly with the Monthly Report of Expenditures, or the Final Report of Expenditures upon completion of all work included in the agreement and verified by the Local Governmental Unit and by the Department.
- The recognized costs incident to the employment of labor under this agreement (such as worker's compensation insurance, unemployment and retirement contributions and time off with pay) computed and requisitioned in accordance with established policy.

- 3. An allowance for the use of equipment, tools and incidentals for the work under this agreement. Such allowance shall be in accordance with the provisions of, and at the rates either:
 - (a) Specified in the Cost Agreement between the Department and the Local Governmental Unit in effect when the work is performed, except for the conditions, changes or additions as listed below, or as may be otherwise provided in the Special Provisions of this agreement; or,
 - (b) Specified in the attached Equipment Rate schedule, or as may be otherwise provided in the special provisions of this agreement.

These payments shall be based on a Detailed Statement of Expenditures, submitted monthly with the Monthly Report of Expenditures, or the Final Report of Expenditures upon completion of all work included in the agreement and verified by the Local Governmental Unit and by the Department.

The rates established apply on equipment in good working order. Allowance will be made only for the time during which the equipment is in actual use on the project; no allowance will be made for equipment wholly inadequate or inefficient or in excess of the requirements of the work.

In connection with the performance of work under this agreement, the contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s.51.01(5) Wis. Stats., sexual orientation, or national origin. This provision shall include, but not be limited to, the following: 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. The contractor further agrees to take affirmative action to ensure equal employment opportunities. The contractor agrees to post in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

The Local Governmental Unit agrees to furnish, on the Detailed Statement of Expenditures, an accurate distribution of the costs between the various items of work.

The estimated unit costs of materials being used on this agreement are listed as attached.

I GENERAL

These contract provisions shall apply to all work performed as part of a LFA contract by the LPA.

A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

Selection of Labor: During the performance of this contract, the LPA shall not 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 ASSURANCE

As required by 49 U.S.C. 5332 (which prohibits discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibits discrimination in employment or business opportunity), Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000d, and U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the DOT--Effectuation of Title VI of the Civil Rights Act," 49 CFR part 21 at 21.7, the Applicant assures that it will comply with all requirements of 49 CFR part 21; FHWA policies, and other applicable directives, so that no person in the United States, on the basis of race, color, national origin, creed, sex, or age will be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination in any program or activity (particularly in the level and quality of transportation services and transportation-related benefits) for which the Applicant receives Federal assistance awarded by the U.S. DOT or FHWA as follows: (1) The Applicant assures that each project will be conducted, property acquisitions will be undertaken, and project facilities will be operated in accordance with all applicable requirements of 49 U.S.C. 5332 and 49 CFR part 21, and understands that this assurance extends to its entire facility and to facilities operated in connection with the project. (2) The Applicant assures that it will take appropriate action to ensure that any transferee receiving property financed with Federal assistance derived from FHWA will comply with the applicable requirements of 49 U.S.C. 5332 and 49 CFR part 21. (3) The Applicant assures that it will promptly take the necessary actions to effectuate this assurance, including notifying the public that complaints of discrimination in the provision of transportation-related services or benefits may be filed with U.S. DOT or FHWA. Upon request by U.S. DOT or FHWA, the Applicant assures that it will submit the required information pertaining to its compliance with these requirements. (4) The Applicant assures that it will make any changes in its 49 U.S.C. 5332 and Title VI implementing procedures as U.S. DOT or FHWA may request. (5) As required by 49 CFR 21.7(a)(2), the Applicant will include in each third-party contract or subagreement provisions to invoke the requirements of 49 U.S.C. 5332 and 49 CFR part 21 and include provisions to invoke those requirements in deeds and instruments recording the transfer of real property, structures, improvements.

III ASSURANCE OF NONDISCRIMINATION ON THE BASIS OF DISABILITY

As required by U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," at 49 CFR part 27, implementing the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990, as amended, the Applicant assures that, as a condition to the approval or extension of any Federal assistance awarded by FHWA to construct any facility, obtain any rolling stock or other equipment, undertake studies, conduct research, or to participate in or obtain any benefit from any program administered by FHWA, no otherwise qualified person with a disability shall be, solely by reason of that disability, excluded from participation in, denied the benefits of, or otherwise subjected to discrimination in any program or activity receiving or benefiting from Federal assistance administered by the FHA or any entity within U.S. DOT. The Applicant assures that project implementation and operations so assisted will comply with all applicable requirements of U.S. DOT regulations implementing the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, and the ADA of 1990, as amended, 42 U.S.C. 12101 et seq. at 49 CFR parts 27, 37, and 38, and any applicable regulations and directives issued by other Federal departments or agencies.

IV SAFETY: ACCIDENT PREVENTION

In the performance of this contract the LPA shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The LPA 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.

It is a condition of this contract that the LPA 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 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).

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).

V 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, LPA's, 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."

VI BUY AMERICA

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. All construction materials permanently incorporated in this project shall be domestic products as defined in CMM 228.5.

VII PROHIBITION AGAINST CONVICT PRODUCED MATERIALS (23 CFR 635.417)

No materials produced by convict labor (unless produced by convicts who are on parole, supervised release, or probation from a prison) may be incorporated into any project located on the Federal-aid highway system. This prohibition does not apply to projects on roads that are functionally classified as local or rural minor collectors.

VIII PURCHASE OF MATERIALS

LPA's are required to use fair and open competition in obtaining articles and materials used in this project. They may not use any requirements, preferences, or procurement methods that exclude out-of-State participation or that unfairly favor in-State sources.

IX REQUIREMENT FOR AND ACCESS TO RECORDS

LPA's must maintain, for at least three years following final payment, complete project records. This includes the thorough documentation of the basis for payment (actual costs of labor, equipment, and materials) as well as documentation prescribed in the WisDOT CMM. In addition, LPA's shall make all such records fully available to WisDOT, the Federal Highway Administration, the U.S. Comptroller General, and their authorized representatives. Records must also be available for public access consistent with the FOIA and State and local law.

Item Unit Cost Analysis

* Exclude	ed cost				Total Exc	luded Cost		\$32,46	62.50
						Total Cos	t Per Unit	\$ 14.	.46
						TOTAL C	OST	\$1229	60.92
\$	118,186.20	@	4.04% (/	Admin rate)	Total Re	ecords & Re	eports	\$ 4,7	74.72
							SUBTOTAL	\$1181	86.20
						Total Mate	erial Cost	 \$31,88	82.50*
Gravel						8,502	\$ 3.75	\$31,88 	02.30
Costs:						Amount	Price	Total	0 50
Ψ Material	01,001.00	U.S.	1.0070				141903	ψΟΙ	0.01
\$	51,961.09	@	1.00%		Total Labo			\$51,96	
					Fringe Bene	ub-Total La efit Rate @		\$28,28 \$23,67	
			-		-				
			Machine C	Operator		20	\$ 26.60		32.00
		Roller Op Truck Driv				85 720	\$ 26.14 \$ 26.14	\$ 2,22 \$18,82	
		Loader O				80 85	\$ 26.60 \$ 26.14	\$ 2,12	
		Grader O				80	\$ 26.60	\$ 2,12	
		Foreman				80	\$ 30.67	\$ 2,45	53.60
		Posi	ition			Total Hours	Hourly Rate	Total	
Labor Co	osts:				То	tal Machin	ery Charges	\$33,82	23.00
	1			9157 Sweeper		20	\$ 29.00	\$ 580).00*
	1			455 Shoulder Machi	ne	15	\$ 86.04	\$ 1,29	
	1			533 Roller		80	\$ 30.68	\$ 2,45	54.40
	1			208 Loader		80	\$ 39.02	\$ 3,12	
	9 1			1118 Truck 307 Motor grader		720 80	\$ 31.54 \$ 43.08	\$22,70 \$3,44	
	1			119 Truck		20	\$ 11.06		21.20
Machine Charges		Clas	SS	Equipment		Total Hours	Hourly Rate	Total	
Item: Quantity: Unit:	Base A		Dense ¾-ir	nch					
Item Nun	-								
Project I. Highway: County:									

Project Unit Cost Analysis

Estimate of Quantities Project I.D. 9362-06-70 Berg Road – Rosedale Road CTH C Langlade County

Item No.	Description	Unit	Quantity	Excluded Costs	County Unit	County Total
305.0115	Base Aggregate Dense ¾ Inch	CY	8,502	\$ 32,462.50	\$ 14.53	\$123504.58
460.3000	QMP, HMA Mixture	Ton	2,800	\$ 2,663.26	\$ 0.95	\$ 2,663.26
460.1100	HMA Pavement, Type E.03	Ton	2,800	0	\$ 15.83	\$44,310.93
455.0105	Asphaltic Material PG58-28	Ton	162	0	\$190.53	\$30,865.54
624.0100	Water	Mgal	130	0	\$ 15.39	\$ 2,000.16
646.0103	Pavement Marking Paint 4- Inch	LF	13,751	0	\$ 0.12	\$ 1,636.96
690.0100	Sawing Existing Pavement	LF	44	0	\$ 5.71	\$ 251.17
SPV.0035	QMP Base Aggregate Cubic Yard	CY	8,502	\$ 1,684.39	\$ 0.20	\$ 1,684.39

TOTAL COUNTY COST \$ 206,916.99

\$200,010.00

TOTAL EXCLUDED COSTS \$ 36,810.15

(cost of purchased materials, supplies, specialized equipment rental) Required exhibits to be sent to Central Office for all Local and State LFA Contracts over \$5,000: Emailed to CO from DOT State Local Force Account Submittals <<u>StateLFASubmittal@dot.wi.gov</u>>

- Contract (DT2056) signed, with all federal attachments included
- Governor's form (DT25)
- Specials Provisions
- Cost Effectiveness Finding (CEF) (with % and \$ saved) with Engineers Estimate and County Estimate attached.
- ALL submittals need to be electronic
- ALL Projects must be loaded in AASHTOWare Project (see FDM 19-5-10)

ALL documents will be kept in the Region Office.

Sample Special Provision

When the County or other local unit of government is furnishing materials under a LFA agreement the following should be included in the special provisions under the type of work being performed such as Traffic Signals, Lighting, Signing, Storm Sewer, Base Aggregate Dense, etc.

Traffic Signals

A. <u>Description</u>. The work under this agreement shall consist of furnishing all and installing all required materials to complete the traffic signals in accordance with the plans and these special provisions.

B. <u>Materials</u>. All materials furnished shall be materials normally used for traffic signal installations by the City and obtained through a competitive purchasing process.

Additional requirements may be added as necessary depending on the type of work (Example: Base Aggregate Gradation).

Special Provisions

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Description

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- Prosecution and Progress. Traffic. 2 2 3.

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- 4.
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- QMP, Base Courses. 2 6.

9362-06-70

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SPECIAL PROVISIONS

General.

Perform the work under this construction agreement for Project 9362-03-70, CTH C, Langlade County Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction 2003 Edition, the Supplemental Specifications 2004 Edition, and these special provisions including the Additional Special Provisions (ASP's). The department considers only standard specifications, supplemental specifications, and interim supplemental specifications issued directly from the department as valid for this agreement.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

(100504)

Scope of Work.

The work under this agreement shall consist of base aggregate dense, HMA paving, and pavement marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and agreement. (041293)

Prosecution and Progress.

Begin work within 10 calendar days after the engineer issues a written notice to proceed. (110303)

Traffic.

CTH C will be closed to through traffic during construction operations under this agreement. Langlade County will provide and maintain a detour and detour signing. The road will remain open to local traffic and emergency vehicles.

Utilities

This agreement does not come under the provisions of Administrative Rule TRANS 220 (111095)

Wisconsin Public Service (WPS) owns overhead facilities along the south side of the roadway. Any required adjustment will be completed prior to the start of construction.

6. QMP, Base Courses

(Insert STSP 301-010)

9362-06-70

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REQUIRED NONDISCRIMINATION PROVISIONS FEDERAL-AID CONTRACTS

During the performance of this contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "CONTRACTOR") agrees as follows:

- <u>Compliance with regulations</u>: The CONTRACTOR shall comply with the Regulations relative to nondiscrimination in federally-assigned programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they be amended from time to time, (hereinafter referred to as the "REGULATIONS"), which are herein incorporated by reference and made a part of this contract.
- 2) <u>Nondiscrimination</u>: The CONTRACTOR, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements 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 REGULATIONS, including employment practices when the contract covers a program set forth in Appendix B of the REGULATIONS.
- 3) <u>Solicitations for Subcontracts, including Procurements of Materials and Equipment</u>: 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 contract and the REGULATIONS relative to nondiscrimination of the grounds of race, color or national origin.
- 4) 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 its facilities as may be determined by the State Highway Division or the Federal Highway Administration to be pertinent to ascertain compliance with such REGULATIONS or directives. Were 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 the State Highway Division, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
- 5) <u>Sanctions for Noncompliance</u>: In the event of the CONTRACTOR'S noncompliance with the nondiscrimination provisions of this contract, the State Highway Division shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - a) Withholding of payments to the CONTRACTOR under the contract until the CONTRACTOR complies, and/or
 - b) Cancellation, termination or suspension of the contract, in whole or in part.
- 6) Incorporation of Provisions: The CONTRACTOR shall include the provisions of paragraphs (1) and (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the REGULATIONS or directives issued pursuant thereto. The CONTRACTOR shall take such action with respect to any subcontract or procurement as the State Highway Division or the Federal Highway Administration any 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 the State Highway Division to enter into such litigation to protect the interests of the State and, in addition, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

REQUIRED BUY AMERICA PROVISIONS

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. All construction materials permanently incorporated in this project shall be domestic products as defined in CMM 228.5.

RECORDS RETENTION

Contractors and subcontractors are to maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred and to make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract, for inspection by the State, Federal Highway Administration or any authorized representatives of the Federal Government, and copies thereof shall be furnished, if requested.



Facilities Development ManualChapter 19Plans, Specifications and EstimatesSection 30Razing and Removal Contracts

Wisconsin Department of Transportation

FDM 19-30-1 General

October 26, 2015

Razing and removal contracts are used when it is necessary to remove buildings and appurtenances from the right of way. These contracts are let by the region through a competitive bidding process. The razing and removal work is normally completed prior to highway construction by contractors who specialize in this work.

Coordinate the letting and advertising dates with the Proposal Development Specialist at (608) 266-3985, at least eight weeks prior to the proposal's intended letting date, submit the PS&E package (word documents and pdf's for all documents except the wage rates and exhibits. Wage rates and exhibits can be pdf only) for a razing and removal contract to the Proposal Development Engineer's mailbox (Mailbox - DOT DTSD BPD Proposal Management Section or DOTDTSDBPDProposalManagementSection@dot.wi.gov).

For more information about this process and examples of the PS&E submittal documents, refer to Chapter 6.1 of the Real Estate Program Manual (REPM) or contact the Proposal Development Specialist at (608) 266-3985.

1.1 PS&E Submittal

You will need the following exhibits for razing and removal PS&E submittals. For working copies of the following forms please contact the Proposal Development Specialist at <u>DOTDTSDBPDProposalManagementSection@dot.wi.gov</u> or call (608) 266-3885:

- Plan Letter: Required for all Razing and Removal Contracts (see <u>Attachment 1.1</u>). In the plan letter, state the location, address, date and time on which the bid letting will take place, and the number of proposals needed by the region for the letting. If the region prints their own copies of the proposal, the region must send 4 copies back to BPD, Proposal Management Section, Attn: Contracts Specialist, so that the Governor's Bond can be signed and the contract processed.
- 2. Engineer's Estimate: Required for all Razing and Removal Contracts (see Attachment 1.2).
- 3. Governor Approval Form (Form DT25): Required for all Razing and Removal Contracts (see <u>Attachment 1.3</u>).
- 4. Highway Work Proposal (Form <u>DT1502</u>): Required for all Razing and Removal Contracts (see <u>Attachment 1.4</u>).
- 5. Special Provisions: Required for all Razing and Removal Contracts (see <u>Attachment 1.5</u>). The razing and removal standard special provisions, which were written to be used in all razing and removal contracts, can be obtained electronically from the Proposal Development Specialist, or click on the attachments and download the latest forms and templates. Complete the razing and removal specials by completing the fields that describe the project, the parcels and buildings that will be razed or removed, contract time requirements, and the requirements of the contract bond.
- 6. Exhibits: Required for all Razing and Removal Contracts (see <u>Attachment 1.6</u>). An exhibit for each parcel is required for all Razing and Removal Contracts. Clearly indicate the project ID and parcel number at the bottom of each exhibit page. The exhibit for each parcel shall contain:
 - a. Additional information about the parcel and work that the contractor will perform.
 - b. A sketch of location map of each parcel on 8¹/₂x11-inch paper, showing the buildings to be removed.
 - c. Photos
 - d. An asbestos inspection report for the parcel.
- 7. Bid Form and instructions for Options A (Contractor to Pay WisDOT) and B (Contractor to Receive Payment from WisDOT) is required for all Razing and Removal Contracts (see <u>Attachment 1.7</u>).

8. Wage Rates: May be required for each county in which the contractor will be working. It is the regions responsibility to apply for the wage rates and send with the PS&E submittal. Based on the state statutes, if the cost of demolition is at or above the statutory minimum (\$100,000) OR involves a residential property of more than two dwelling units, the Regions will need to apply for a wage rate determination from Department of Workforce Development (DWD). If the demolition costs less than the dollar amounts stated in statute (\$100,000) OR involves property with one or two residential dwellings, we do not need to attach any wage rates to the project. It is outside of prevailing wage.

The wage rates can be obtained through the following link:

http://dwd.wisconsin.gov/er/labor standards bureau/labor standards e services.htm

1.2 BPD Processing

Once the PS&E package has been submitted, BPD will:

- 1. Review the PS&E package, ensuring that the Highway Work Proposal and special provisions have been completed.
- 2. Add additional contract documents and additional special provisions, and assemble the proposal for bid letting.
- 3. Send the proposal to DOA for mass printing, if requested by the region.
- 4. Prepare and send the advertisement to the publication Daily Reporter.
- 5. Post the advertisement and proposal on the department's HCCI site at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

NOTE: Contractors will still need to notify the regional contact for a bid packet.

6. Forward the completed DT25 Form to the Contracts Specialist.

LIST OF ATTACHMENTS

- Attachment 1.1 Plan Letter for Razing and Removal
- Attachment 1.2 Engineer's Estimate
- Attachment 1.3 Governor's Approval Form DT25 for Razing and Removal
- Attachment 1.4 Highway Work Proposal DT1502 for Razing and
- Attachment 1.5 Removal Special Provisions for Razing and Removal
- Attachment 1.6 Exhibits (Example)
- Attachment 1.7 Bid Form and Instructions for Razing and Removal

CORRESPONDENCE/MEMORANDUM _____ STATE OF WISCONSIN

Date:	{Current Date}	<i>File Ref.</i> : user note Planltr:	F11 to find fields
<i>To</i> :	Scott Lawry, P. E. Attn: Chief Proposal Management En Bureau of Project Development Room 601 Hill Farm State Office Buil		
From:	{Name} {Title} Region		
Subject:	{I.D. Number} {Road} {Section} {Highway} {County}		

INTRODUCTION

We are submitting for your review and approval, the P.S.& E. for the proposed Razing and Removing Project. The customary advertising in the Daily Reporter is requested.

Contract Type: Razing and Removing Buildings

Total Contract Amount: \$

(see attached engineer's estimate)

Bid Letting Date and Time: {Let Date} Bid Letting Location: (Please include; District Office, Room Location (if known), Mailing Address with Zip Code)

The Region contact person for project information is: {Name} () {Phone No.}.

PS&E EXHIBITS

Enclosed are the following PS&E Exhibits:

Highway Work Proposal cover sheet Special Provisions Parcel Site Details and Asbestos Inspection Reports Engineers Cost Estimate Form DT-25 (Recommendation to Governor for Contract & Bond Approval)

PROPOSALS

Please add the required bid bond forms and wage rates to the proposal.The District requestsproposals for bidding and construction purposes.(OR: The District will print the proposals for bidding and construction purposes and will return to you 6 copiesprior to the bid letting).

ENGINEERS ESTIMATE

Project ID	, Parcel	; {Road}, {Section}, {Highway}, {City/Village/Town}, {County}
Project ID	, Parcel	; {Road}, {Section}, {Highway}, {City/Village/Town}, {County}
Project ID	, Parcel	; {Road}, {Section}, {Highway}, {City/Village/Town}, {County}

ID/Parcel No./Address/Description	Estimated Razing Costs	Estimated Asbestos Removal Costs	Total Estimated Removal Costs
ID , Parcel – {Address including town} - {Description of Work - same as article 2 in special provisions}	\$	\$	\$
ID , Parcel – {Address including town} - {Description of Work - same as article 2 in special provisions}	\$	\$	\$
ID , Parcel – {Address including town} - {Description of Work - same as article 2 in special provisions}	\$	\$	\$
ID , Parcel – {Address including town} - {Description of Work - same as article 2 in special provisions}	\$	\$	\$
Total:	\$	\$	\$

The estimate is based on the current rates for demolition of these types and sizes of structures.

The approximate cost of asbestos abatement is based on the related asbestos inspection reports.

RECOMMENDATION TO GOVERNOR FOR CONTRACT AND BOND APPROVAL

Wisconsin Department of Transportation

DT25 2/2005		Let Proposal Number
Project ID(s)	Organization - Division	Bureau
XXXX-XX-XX Parcel #	Transportation System Development	Project Development
	Originator Name	Title
	Scott Lawry, P.E.	Chief Proposal Management Engineer
	Contract Amount	WisDOT Confidential Estimate
	\$	\$
Contract With	Contract Type	
	Let Construction LFA (State) LFA ((Local) 🛛 Razing 🛛 Emergency Construction
of	Traffic Mitigation	Construction Eng Design Eng Survey
	🗖 Bridge Design 🛛 Environmental 🗧	Railroads Other:
Project Description/Location	I	
Must match		

FIIPS

Date Let	Date Awarded	Bond Required	Bond Not Required
Date, Time			
Project Requested By or D	ITDOSE	•	

Project Requested By or Purpose

To raze and remove acquired buildings for public safety.

Work Consists of

Razing and removal of buildings, asbestos abatement, and site clearance

Consequences - If Not Approved

Construction expenses will rise and project letting could be delayed because right-of-way would not be cleared

PROJECT FUNDING PERCENTAGES				
STATE I.D.	STATE FUNDS	FEDERAL FUNDS	LOCAL FUNDS	OTHER
XXXX-XX-XX	100%			

Contract Authority

I certify that this contract is financially and programmatically consistent with the approved annual operating budget or facilities program. I further certify that this request for Governor's approval meets all applicable state and federal statutes, rules, regulations, and guidelines. This certification is based upon a thorough and complete analysis of this request.

Forward to Department Secretary	X (Contract Authority)	(Date)
Forward to Office of the Governor	X (Department Secretary / Deputy Secretary)	(Date)
Return to Contract Authority	X (Governor - Approval and Authorization)	(Date)

HIGHWAY WORK PROPOSAL – RAZING AND REMOVING

Wisconsin Department of Transportation 1/2008 s .66.29(7) Wis. Stats

COUNTY	STATE PROJECT ID	PROJECT DESCRIPTION	HIGHWAY

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended proposal requirements and conditions.

Proposal guaranty required, \$ {FDM 19-10-25.1} Payable to: Wisconsin Department of Transportation

Attach Proposal Guaranty.

Proposal Number:

1

Bid submittal due	Firm name, address, city, state, zip
Date: Tuesday, October 21, 2014	
Time (local time): 9:00 AM	
Contract completion time	
Forty (40) Calendar Days	
Assigned disadvantaged business enterprise goal	This contract is exempt from federal oversight.
0 %	

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

Do not sign, notarize or submit this highway work proposal when submitting an electronic bid on the internet.

Subscribed and sworn to before me this date ____

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State Wisconsin)

(Date Commission Expires)

For Department Use Only

Razing and Removing	
Notice of award dated	Date guaranty returned

Type of Mork

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

Special Provisions

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Description

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State Highway Project ID _____, Parcel _____

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Article

STSP'S Revised January 26, 2015

SPECIAL PROVISIONS

1. General.

The work under this contract for the construction of the following projects in Wisconsin:

Project ID ,- <u>Project Title from FIIPS:</u> , Identify *City/Village/Town* of , County;

(Repeat same if more than one Project ID ...)

Perform the work under this construction contract as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction Edition and these special provisions including the Additional Special Provisions (ASP's).

This Razing and Removing Proposal has been developed under the U.S. standard measure system.

The Standard Specifications for Highway and Structure Construction Edition is available for browsing, download, or to place an order for a hard copy at:

http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/stndspec.aspx

Those who do not have access to the web may order a hard copy of the specifications through:

WI Department of Administration - Document Sales and Distribution Section 202 S. Thornton Avenue, PO Box 7840, Madison WI 53707-7840 Phone: (608) 266-3358

2. Scope of Work.

Work under this contract includes razing and removing buildings, disposing of all material and debris, removing all miscellaneous land improvements, if any, placing compacted backfill in the exposed basements and openings resulting from the removal of the buildings, and grading the vacant site. (See Parcel Exhibits included in this proposal.) Do not disturb adjacent property.

State Highway Project ID, 1	Parcel
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Page 2 of 12

Keep the abutting highway free of debris and mud throughout performance of the work under this contract.

Abandon the present sanitary sewer or septic system and water systems in accordance to current statutes, ordinances, and regulations.

Plank with suitable timbers the public streets and highways, which serve as access for heavy equipment, to preclude any damages to said facilities. Repair all damages to these public facilities or replace them with like materials at contractor expense.

Maintain all roads, highways, or public places adjacent to any building or buildings being razed or removed, in a debris or litter-free condition throughout the life of this contract.

However, should the use of the above highways be required for razing or backfilling operations, erect splashboards or reflector panels and place warning signs at appropriate locations to protect the general public.

Raze and remove the buildings and backfill the resulting exposed openings at the following locations:

ProjectParcelType of BuildingAddress

Example : A one-story (+ 2,208 SF) fast food restaurant w/a full (1,728 SF) unfinished basement, a ± 480 SF atrium, a 3,072 SF metal-framed canopy, and a fenced-in garbage enclosure. Signage - concrete footing, metal pole and exterior lighting. Several concrete barrier posts and numerous parking stops. Concrete/asphalt access walks. slabs, curbs and steps if applicable. Concrete/asphalt paving areas (driveway/parking) may remain unless disturbed or damaged during

State Highway Project ID _____, Parcel _____

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demolition. Private Well and Septic.

Perform the following:

- 1. Remove the structures and septic tank from the premises.
- 2. Remove and dispose of all asbestos and hazardous materials in compliance to current local, state, and federal guidelines and laws, including asbestos not discovered in the pre-razing inspections included in these specifications. The most recent edition of any applicable standard, code, or regulation shall be in effect. Where conflict among the requirements of these specifications occurs, follow the most stringent. Only a qualified and certified asbestos removal contractor shall perform the removal of asbestos. If not licensed to remove asbestos, employ a certified subcontractor to perform this work. An inspection report for each building indicating the presence or absence of asbestos in exposed positions of the structure is included in this proposal, unless otherwise indicated.
- 3. The successful bidder shall arrange for the public and/or private utility companies to disconnect their services and remove meters. Make arrangements with the local plumbing inspectors to inspect the abandonment of well and septic systems and/or sewer and water laterals. In accordance to state laws and administrative rules, licensed well driller and pump installer contractors shall accomplish all water well abandonment.
- 4. Conduct all demolition, removal, and backfilling operations in such a manner that all conflicts with vehicular traffic on adjacent streets and highways are avoided. Use barricades or fencing, or both, when needed to guarantee the safety of pedestrians or motorists.
- 5. Upon completion of the backfilling operations of the exposed basements and other openings, fine-grade and shape the area. Also, topsoil (conforming to standard spec 625.2), fertilize (conforming to standard spec 629.2.1.3), seed using #10 mixture (conforming to standard spec 630.2.1.5.1.1.1), and mulch (conforming to standard spec 627.3.1) right of way affected.

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Give definite notice of intention to start work to the Wisconsin Department of Transportation, Region, Attn: , , , , , WI , Phone , at least 72 hours in advance of beginning work.

State Highway Project ID _____, Parcel _____

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In the event that some structures are not vacant and available when the order to start is issued, begin work on the parcels that are vacant and available, and continue with operations until the available structures have been razed or removed, the resulting exposed basements removed in their entirety and removed from the site, and all openings backfilled. Notify the department's representative when the vacated and available structures have been removed and the exposed openings backfilled. Suspend operations until the remaining structures become vacant and available; contract time will not be charged during such period of suspension. Resume work within ten days after the date the department representative has issued a written order to do so. In the event that a structure or structures are not available to the contractor within a period of 270 days subsequent to the execution of the contract by the State, due to their occupancy or other circumstances, the contractor may have the option to request release of said unavailable structure or structures from the contract.

On those contracts executed under Option B, the contractor may, after the expiration of the period defined above, request the deletion of a parcel or parcels from the group in the contract. The deletion of a parcel or parcels shall be accomplished by contract change order negotiated at the price listed for such parcel in the contract.

However, should the contractor submit his bid under Option A, in which payment is made to the State by the contractor, and the above unavailable conditions should exist, the unavailable parcel or parcels shall be deleted from the contract. The unavailable parcel or parcels shall be released from the contract at no expense to the State, except for the return of the money in the amount or amounts entered and submitted for said parcel or parcels under contract change order.

The contract time affected by the deletion of the parcel or parcels will be terminated on the date of the last suspension date of the completion of the work of the last structure or structures.

Unless otherwise specifically provided, no additional or extra compensation or additional contract time will be allowed due to deferment or suspension of operations.

Should the contractor, whether the bid is submitted under Option "A" or Option "B", fail to complete the work within the time agreed upon in the contract or within such extra time as may be allowed by extension, there shall be liquidated damages deducted from any monies due the contractor, for each and every calendar day, including Sundays and holidays, that the work shall remain uncompleted, in accordance with standard spec 108.11. The sum shall be considered and treated not as a penalty, but as fixed, agreed, and liquidated damages due the State from the contractor by reason of inconvenience to the public, added cost of engineering and supervision, and other items that have caused an expenditure of public funds resulting from the failure to complete the work within the time specified in the contract.

State Highway Project ID	, Parcel

Page 5 of 12

Permitting the contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, shall in no way operate as a waiver on the part of the department of any of its rights under the contract.

4. Proposal Requirements and Conditions.

Standard spec 102.1, Prequalifying Bidders, shall not apply to this contract; however, prior to awarding a contract, the department may require the bidder to produce evidence that he, she or it has performed work of a similar character in a satisfactory manner.

5. Preparation of Proposal.

Add the following to standard spec 102.6::

The bidder shall submit his bid on the forms contained herein and return this **entire** original document completely intact when submitting the bid. Bids submitted on copies of the document may be grounds for rejection.

6. Subletting or Assignment of Contract.

Standard spec 108.1, which prescribes the minimum amount of work to be performed with the contractor's own organization, shall not apply to this contract. However, if a subcontractor (including, but not limited to, asbestos removal specialists) will be employed, the bidder shall attach the name, address and specialty of that contractor to the page of the bid in the spaces indicated for that use.

7. Award of Contract.

The department will consider the bids submitted in the proposal and reserve the right to award the work on the basis of lowest responsible bidder, meeting all terms and conditions of these specifications.

8. Cancellation of Contract.

In the event the building(s) should be so severely damaged by fire, windstorm, or other act of God as to materially impair the salvage value of the material contained therein after the bid has been made and submitted on the date and hour set forth and before the contract has been executed by the state and the contractor notified thereof, the contractor may file a request for the cancellation of the contract. If, upon finding by the department that such is the fact, the department will cancel the contract and relieve the contractor of all responsibility there under.

State Highway Project ID	, Parcel
State Highway Project ID	, raiter

Page 6 of 12

In the event, however, that the department should determine that such damage is only minor or inconsequential, the contractor will be required to fulfill the terms of this contract.

9. Standard Insurance Requirements.

Standard insurance requirements shall be in accordance with standard spec 107.26 and as hereinafter provided.

If this project includes only razing and removing of residential units, revise the insurance table provided in paragraph 1 of standard spec 107.26 as follows:

Type of Insurance	Minimum Limits Required*
1. Commercial General Liability Insurance; shall be endorsed to include blanket contractual liability coverage.	\$2 Million Combined Single Limits per Occurrence; may be subject to an Annual Aggregate Limit of not less than \$2 Million.
2. Workers' Compensation and Employer's Liability Insurance.	Workers' Compensation: Statutory Limits Employer's Liability:
	Bodily Injury by Accident: \$100,000 Each Accident
	Bodily Injury by Disease: \$500,000 Each Accident \$100,000 Each Employee
 Commercial Automobile Liability Insurance; shall cover all contractor- owned, non-owned, and hired vehicles used in carrying out the contract. 	\$1 Million-Combined Single Limits Per Occurrence.

*The contractor may satisfy these requirements through primary insurance coverage or through a combination of primary and excess/umbrella policies.

10. Traffic.

Maintain pedestrian and vehicular traffic on the roads and highways adjacent to these premises through the life of this contract.

11. Legal Relations and Responsibility to the Public.

Add the following to standard spec 107.3:

Procure all permits necessary to carry out the work, including those necessary while the roads and highways are obstructed either by operations or by the storage of equipment or materials.

State Highway Project ID _____, Parcel _____

Page 7 of 12

The awarding of this contract does not guarantee the issuance of a permit to move any structures over state highways.

The contractor agrees not to move any of the structures within a proposed highway corridor of the State of Wisconsin.

Add the following to standard spec 107.8:

Notify the local law enforcement agency, fire department, and any surface transportation company that may be affected by the anticipated street obstructions or hazards.

Add the following to standard spec 107.22:

Notify the various public or municipal utility companies to disconnect and remove such of their facilities as may be in the buildings, or attached to them, sufficiently in advance of beginning razing operations to allow the utilities to make their disconnections.

12. Protection of Streams, Lakes and Reservoirs.

Standard spec 107.18 shall apply.

13. Underground Fuel Storage Tanks.

The successful bidder will be supplied with a copy of the Environmental Site Assessment for each parcel for which an assessment was deemed necessary or for sites on which underground storage tanks were removed. A private consultant will remove any tanks discovered during the Environmental Site Assessment before razing activities begin.

If tanks are discovered on the site during razing that were not removed as part of or in the absence of an Environmental Site Assessment, immediately cease razing operations on the site and contact the department. The department will hire a private consultant to remove the discovered tanks.

14. Asbestos Removal.

Comply with the requirements of the Environmental Protection Agency (EPA) regulations, National Emission Standards for Asbestos, the Occupational, Safety and Health Administration (OSHA) regulations on asbestos removal, all applicable Wisconsin Department of Natural Resources (DNR) regulations, and local government regulations. The most recent editions of all applicable standards, codes or regulations shall be in effect. Where conflict among the requirements of these specifications occurs, follow the most stringent. In addition, the following requirements apply to this work:

State Highway Project ID _____, Parcel

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Any person performing asbestos abatement must comply with all training and certification requirements, rules, regulations and laws of the State of Wisconsin regarding asbestos removal. If you plan to demolish a building that may contain or is known to contain asbestos, proper notification must be provided to the Department of Natural Resources (DNR) and the Wisconsin Department of Health Services (DHS), at least 10 working days before starting the work. *Note:* Wisconsin DNR Central Office phone: (608) 266-2621 – reference: *DNR Form 4500-113 "Notification of Demolition and/or Renovation and Application for Permit Exemption"*. Wisconsin DHS Asbestos & Lead Section Central Office phone (608) 261-6876 - reference: *DHS Form F-00041 "Asbestos Project Notification.*

Reference: htt	p://dnr.wi.gov/topic	/Demo/Asbestos.html
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Reference: http://dhs.wisconsin.gov/waldo

Asbestos removal is considered incidental to razing and removing buildings and will not be measured for payment separately.

15. Notice to Department of Natural Resources.

When required, notify the Regional Office of the Department of Natural Resources (DNR) located at , , WI Phone , at least ten working days in advance of the contractor's intent to raze or otherwise remove each parcel. In the notice to DNR, include the address and type of building(s) to be razed or removed, the proposed date that each will be razed or removed, and the name of the licensed or approved landfill where the demolition waste will be disposed. Mail a copy of this notice within ten days of DNR notification to: WisDOT-DTSD- Region - Attn: , , , WI

The contractor's failure to comply with the requirements of this article shall subject the contractor to a penalty of liquidated damages pursuant to standard spec 108.11. The liquidated damages formula will apply for each day in which the provisions of this article are not met.

The well abandonment subcontractor shall prepare and submit to the DNR the Well Abandonment Report form(s), required by law in the manner prescribed herein.

Provide copy of the Well Abandonment Report form(s), within 30 days of abandonment, to: WisDOT-DTSD- Region - Attn: , , , WI .

16. Disposal of Materials.

Add the following to standard spec 104.8:

State Highway Project ID _____, Parcel _____

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All salvage removed from the buildings, including fixtures and appurtenances such as screens and storm sash, shall be the property of the contractor and shall be entirely removed from the premises.

Clear the entire premises of all decomposable and combustible refuse, debris, and materials resulting from the removal of the buildings. Upon completion of the work, leave the entire premises in a neat condition. Do not deposit or leave decomposable or combustible refuse, debris, or materials resulting from the removal of the buildings on any state-owned lands, or right-of-way of any highways, including any exposed openings resulting from razing activities.

All living trees, shrubs, evergreens and other vegetation shall remain the department's property. Use care to preserve as much of the landscaping as is reasonably possible.

17. Custody of the Building.

Upon written order by the department representative to commence work, the buildings and surrounding state-owned property shall be under the custody of the contractor. Nothing in this proposal shall be interpreted as setting forth the condition of any building or the appurtenances thereto. Except as otherwise provided herein, it is to be understood that the department accepts no responsibility for the protection of buildings and appurtenances against damages sustained either prior to or subsequent to the time of the letting of the work under this contract. The contractor shall take such measures as are necessary to safeguard the public from damages or injury.

While the buildings are in the contractor's custody, keep the buildings in a closed condition. Do not remove doors or windows from the buildings until the actual day of razing, unless all openings are sealed as approved by the engineer. Only the contractor and his subcontractor shall salvage building components. At all times, do not allow the general public in the buildings or on the grounds.

18. Removing Buildings.

Amend standard spec 204.3.2.3 to allow removal of buildings, by relocation, intact to a new site beyond the right of way limits.

If the contractor elects to move structure(s) from the parcels, regardless if bidding under Option A or B, but fails to remove the structure(s) from the premises by the time set forth earlier in this contract for completion, the contractor shall forfeit any and all rights, title and interest in the structure(s), and the structure(s) and any salvageable materials remaining on the premises shall revert to the ownership and control of the Wisconsin Department of Transportation to dispose of as it sees fit; but nothing shall in any way release the contractor from any of the contractor's duties, obligations or liability under the terms and provisions of this contract. The contractor shall not sell, nor in any manner

State Highway Project ID _____, Parcel _____

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transfer title of the structure(s) to a third party until the structure(s) is removed from the right-of-way limits.

The department has no knowledge regarding the condition of the structure(s) or their related components. The department cannot and does not warrant the condition of the structure(s) or their components, nor does the department warrant, guarantee, or imply the suitability of the structure(s) for moving.

19. Removal and Razing Operations.

This work shall be in accordance with standard spec 204 and as hereinafter provided.

Furnish all labor, equipment, tools, transportation, and incidentals necessary for the performance of the work.

Remove all concrete steps, concrete sidewalks, and concrete slabs from the premises.

In compliance with the ordinances and permit requirements of the municipality in which the buildings are situated, and in the presence of the local governing unit, a certified/licensed well driller, pump installer or water system operator shall seal or abandon all sewer and water lines and/or wells pursuant to Wisconsin Statute §280.30 and the Natural Resources portion of the Wisconsin Administrative Code covered under NR 811 and 812.

Until standing walls have been razed, the walls shall be reasonably and safely braced at all times to ensure complete safety during the wrecking operations.

Break and remove entirely from the site all basement walls, floors and footings.

Dispose of all non-hazardous demolition waste in a landfill licensed or approved in writing by the Department of Natural Resources and in accordance with NR500, Wisconsin Administrative Code. Failure to properly dispose of solid waste is a violation of State Solid Waste Statutes and Administrative code and is subject to issuance of a citation under Wisconsin Statute §287.81(2)(a).

Remove all hazardous materials from the site, only after proper notification and compliance with the department requirements of the Wisconsin Department of Natural Resources (DNR) and local government regulations.

Remove all material from the premises in a safe manner and in compliance with all applicable laws and ordinances. Do not disturb adjacent property.

20. Backfill.

State Highway Project ID _____, Parcel _____

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Prior to any backfill operations, notify the regional office of the Department of Transportation to inspect all exposed areas resulting from the razing and removal operations. Contact Wisconsin Department of Transportation, Region, Attn:

Ensure that all exposed basements and openings are free of all refuse and debris.

Backfill exposed basements and openings in accordance with standard spec 204.3.1.2 to the present surrounding ground elevation. Compaction of backfill shall be in accordance with standard spec 207.3.6.2. Furnish backfill meeting the requirements of standard spec 209 for use as backfill material.

Fill the septic systems with granular material and abandon all wells and/or sanitary sewers, if any, in compliance with all ordinances and permit requirements of the municipality in which the buildings are situated and those of the State of Wisconsin.

21. Fencing.

After removing the buildings, furnish and erect suitable fencing around the basement, porch openings, and other large open excavations to protect and safeguard the public from all hazardous conditions created by the operations. Install the fencing in such a manner to ensure that the general public is prevented from falling into any openings. The fence shall be a height of 52 inches, and the posts shall be at least 58-inches high and spaced at a distance no greater than ten feet apart. After all open excavations have been backfilled satisfactorily, remove the fencing.

State Highway Project ID	, Parcel
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<u>EXHIBITS</u> ID 1517-07-21 – Parcel 22

Removal, Grading, Backfill

Photos

Floor Plan

Location Map

Asbestos Inspection Report

ID 1517-07-21, Parcel 22 - 1005 Lakeshore Drive, Town of Menasha

1517-07-21

Parcel 22

<u>REMOVE</u>: 1,406 sq. ft. ranch-style single family residence with an attached one-stall garage and full basement. Concrete/asphalt access walks, slabs, drives and steps, miscellaneous fencing and any other relevant yard improvements, and any other debris if present. Basement walls, floors and footings, if present, must be removed in their entirety and hauled from the site. Asbestos, if present, must be removed pursuant to Article 15 of the Special Provisions. The present sanitary system and water system are to be abandoned in accordance with current statutes, ordinances, and regulations.

<u>GRADING</u>: As directed by the State Department of Transportation inspector. Reference Special Provisions – Article 2 – Item #5.

BACKFILL: Reference subsection 204.3.1.2 of the Standard Specification; Septic Tank – Granular Material; Well-Concrete or Other Material Acceptable to Wisconsin Department of Natural Resources.

1517-07-21

2

Parcel 22

PHOTOS

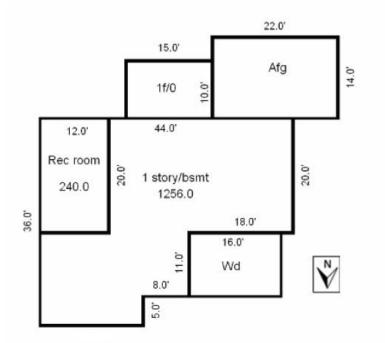




1517-07-21

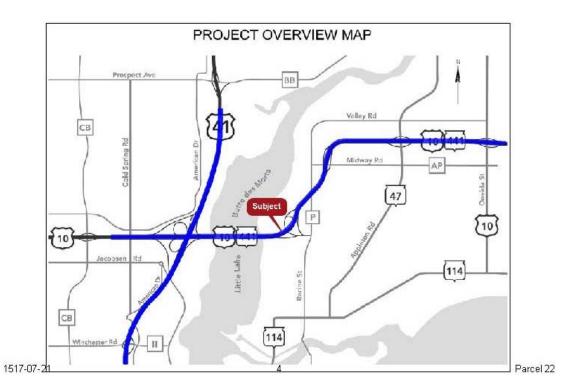
3

Parcel 22



FLOOR PLAN

LOCATION MAP



ASBESTOS REPORT

1517-07-21

BID FORM INSTRUCTIONS

(Please Read Carefully)

Option A: THE BIDDER INTENDS TO MAKE PAYMENT TO THE STATE OF WISCONSIN.

Option B: THE BIDDER INTENDS TO RECEIVE PAYMENT FROM THE STATE OF WISCONSIN.

- 1. Under the column entitled "Option A," insert the amount, if any, in numerals (dollars and cents) for each parcel that the <u>bidder intends to pay</u> the State of Wisconsin.
- 2. Under the column entitled "Option B," inset the amount, if any, in numerals (dollars and cents) for each parcel that the <u>bidder intends to be paid</u> by the State of Wisconsin.
- 3. A bid of \$0.00 is acceptable.
- 4. Bidder must bid on each parcel but only under one option per parcel.
- 5. A bid, which lists an amount under both options, will be considered an irregular bid and rejected.
- 6. Bidder must either leave blank or line out the blank under the option for which the bidder does not submit a bid.
- 7. The contract, if awarded, will be awarded based on the bid most favorable to the Department. A combined net bid is the difference between bids under Option A and Option B. Therefore, in the "Total Bid or Combined Net Bid" row on the Bid Proposal, if you bid under only one option for all parcels, enter the total amount. If you bid under Option A for some parcels and Option B for other parcels, enter the difference between the two bids. (Reference Article 7, Award of Contract)
- 8. The bid proposal shall remain completely intact when submitted. (Reference Article 5, Preparation of Proposal)
- 9. A SEPARATE CERTIFIED CHECK, BANK'S DRAFT, BANK'S CHECK, OR POSTAL MONEY ORDER FOR THE BID AMOUNT IN THE "OPTION A" SUBTOTAL COLUMN SHALL BE ATTACHED TO THE BID PROPOSAL.
- 10. PROPOSAL GUARANTY (see Subsection 102.8 of the Standard Specifications). ONE OF THE FOLLWING NEEDS TO BE COMPLETED BY THE BIDDER AND RETURNED WITH THE BID PROPOSAL: (1) a properly executed Bid Bond (form to be used is found near the front of this proposal *do not* remove from bid proposal); or (2) a properly executed Annual Bid Bond (form to be used is found near the front of this proposal *do not* remove from bid proposal); or (3) a separate certified check, bank's draft, bank's check, or postal money order in the amount of the proposal guaranty that is to be attached to the second page of this bid proposal under "Please Attach Proposal Guaranty Here."

<u>Note</u>: Deposit a valid surety bond with the department in the amount designated on the bond form covering both performance and payment. Submit the contract bond on a department-furnished form. This is also stated in standard spec 103.5.

BID PROPOSAL

Project I.D. xxxx-xx-xx, Parcel x, location/address, xxxxxx County

Project/Parcel Number	Option A – Contractor to Pay WisDOT	Option B – Contractor to Receive Payment from WisDOT
	\$	\$
	\$	\$
	\$	\$
	\$	\$
	\$	\$
Option A Total:	\$,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Option B Total:	\$
	Total Bid or Combined Net Bid	\$

PLEASE NOTE: A separate Certified Check, Bank's Draft, Bank's Check, or Postal Money Order for the Bid Amount in the "Option A" subtotal column shall be attached to this Bid Proposal – see Bid Form Instructions for specific information.

Telephone Number with Area Code (where you can be reached Firm Name during business hours)

Check box if Bidding Contractor is a Certified Asbestos Abatement Contractor and will perform the required asbestos removals under this contract, <u>**OR**</u> complete the following:

IF APPLICABLE:

I will use the following Licensed Asbestos Abatement Subcontractor to perform the required asbestos removal under this Contract:
Name:
Address:
Phone:



FDM 19-35-1 General

September 15, 1995

Transportation Economic Assistance (TEA) and Economic Development Administration (EDA) funded projects shall conform to the following procedures.

1.1 TEA Projects - State Administered

The PS&Es for state administered TEA projects shall follow the same procedures as other state funded projects. There will be no special handling by the Office of Construction, Contract Management Section.

1.2 TEA Projects -Locally Administered

The process for the district's involvement in locally administered TEA projects is covered in a letter dated November 15, 1991 from the Bureau of Highway Districts and the Bureau of Policy Planning and Analysis under the subject titled Locally Administered TEAs: Process Standardization.

The Office of Construction, Contract Management Section will not be involved in plan checking or advertising for bids. This will be handled by the local unit of government. Therefore a PS&E shall not be submitted to the Office of Construction. A single copy of the PS&E documents should be sent to the Quality Management Chief in the Office of Design.

1.3 EDA Projects -State Administered

When the local agency is planning to use EDA funds on a TEA project, the PS&E for a state administered project shall follow the same procedures as other federally funded projects, except as outlined below.

The following special actions will be taken by the Division of Highways to assist the local agency in obtaining EDA funds.

1.4 Special Actions by the Office of Construction

- 1. A statement will be included in the advertisement to the effect that EDA funding is used in part to finance the work.
- 2. EDA project numbers will be included on the plan and proposal.
- 3. Federal Highway Administration requirements will be included in the proposal. There will be no Disadvantaged Business Enterprise assignment. Apprenticeship training will be included.
- 4. Provisions will be included in the proposal for:
 - Employment of Local Labor
 - Small, Minority, Women's and Labor Surplus Area Businesses
- 5. Copies of the advertisement for bids, plans and proposal will be sent to Regional Office of EDA.
- 6. Copies of the transmittal memo to EDA will be provided to the district director, the Division of Planning and Budget and the consultant or local agency.
- 7. A certified copy of summary of bids received for the project and notification of the contract award will be sent to the Regional Office of EDA after the letting.
- 8. After the contract is executed, the following documents will be forwarded to the consultant or local agency for their use in obtaining EDA grant monies for the municipality.
 - One set of plans and sample proposal.
 - A signed statement relative to the public opening of bids.
 - A certified bid tabulation for the project.
 - Recommendation for award to lowest responsible bidder.
 - Reprint of advertisement by Western Builder including publication date.
 - Copy of signed proposal cover and Schedule of Prices from low bidders proposal.
 - Copy of any letters from Office of Commissioner of Transportation.
 - Copy of Notice of Award.
 - Copy of notification of Award which has been sent to Regional Office of EDA.

- Copy of Contract and Bond forms.
- Copy of signed Clean Air Act certification.

1.5 Actions Taken by the Consultant or Local Agency.

- 1. The consultant or local agency shall make arrangements with the district office to obtain copies of the following.
 - Start to work order.
 - Minutes of the preconstruction conferences.
 - Copies of contract change orders.
 - Copies of payment estimates.
 - Copies of payrolls if required.
- 2. The consultant or local agency is responsible for all submittals to EDA other than initial copies of the advertisement, plan, proposal and certified copy of bids received, which the department will send directly to the regional office of EDA.

1.6 EDA Projects -Locally Administered

The process for locally administered EDA projects shall be the same as locally administered TEA projects.

FDM 19-40-1 PS&E Pre-Submittal Review Guide

July 13, 2018

Designers need to thoroughly check their PS&E package before submittal to central office for formal review. Follow the same PS&E Pre-Submittal Review Guide, Exhibit 1.1, the plan reviewers will be using to conduct their formal review.

Exhibit 1.1 (PS&E Pre-Submittal Review Guide) is an outline of the actions to be taken during a PS&E review. It helps ensure that a PS&E is complete, concise and consistent within itself at the time of PS&E submittal to the central office.

Exhibit 1.2 is the Examiner's List of Standard Detail Drawings.

LIST OF EXHIBITS

Exhibit 1.1PS&E Pre-Submittal Review GuideExhibit 1.2Standard Detail Drawings (Examiner's List)

August 17, 2020

This guide is an outline of the actions taken during a project plan specification and estimate (PS&E) review. It helps ensure that a PS&E is complete, concise and consistent at the time of submittal to Central Office. Central Office plan examiners will complete a bidability review using this guide to ensure that the proposal package is ready for bidding when advertised.

<u>General</u>

A. Plan letter (refer to FDM 19-10-15). The plan letter should state:

- 1. Type of work (as defined for each project and/or contract).
- 2. Non-standard construction or bidding practices and explain reasons.
- 3. That the PS&E has been reviewed by the various central office units listed in <u>FDM 19-1 Attachment</u> <u>1.2</u>, that their comments have been received, and appropriate revisions have been made with a date supplied by the reviewer for the appropriate slot in the matrix at the end of the plan letter.
 - a. Bureau of Project Development (BPD), Design Project Oversight Unit. The specific region's oversight liaison engineer needs to review STH, USH, & IH plans, specification and estimates for accurate roadway design, conformance to the design standards, and to ensure it conforms to the design study report (DSR). Designer must obtain an acceptance date for the plan letter matrix from this section.
 - b. Bureau of Structures (BOS). Submit final bridge plans, box culvert plans, retaining wall plans, and sign bridge plans to BOS for review a minimum of two months before the PS&E date.
 - c. Bureau of Traffic Operations (BTO), Traffic Engineering Section, Traffic Design Unit reviews all signing plans, bid items, and special provisions (Matt Rauch, 608-266-0150 HFSTB or 608-246-5305 Sign Shop). This unit creates the sign layout sheet PDF files or supplies the required hard copy sign plate drawings for each plan set that requires them. This section also reviews work zone traffic control and pavement marking plan sheets, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

BTO, Traffic Engineering Section, Traffic Operations Unit reviews all traffic signals plans, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

BTO, Systems Operations and Electrical Engineering Section, Electrical Engineering and Electronics Unit will review all roadway overhead lighting plans, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

BTO, Systems Operations and Electrical Engineering Section, State Traffic Operations Unit reviews all intelligent transportation system (ITS) plans, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

- d. Bureau of Highway Maintenance, Highway Maintenance and Roadside Management Section reviews all landscape planting plan details, items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.
- e. Bureau of Technical Services (BTS), Environmental Service Section reviews all hazardous material, asbestos, erosion control, and storm water discharge related information, plan details, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

BTS, Environmental Process and Documentation Section reviews all wetland, endangered resources, archeological, historical, air, and noise related information, plan details, bid items, and special provisions. Designer must obtain an acceptance date for the plan letter matrix from this section.

- 4. Information to be included in the advertisement, such as: date/time/location and brief agenda of pre-bid meeting if one is being held, requesting that prequalification be waived (this requires approval from Proposal Management Chief).
- 5. Project design number.

- 6. Provide project contact information for WisDOT and the consultant (if applicable).
- 7. If a project is federally funded, and ASP-1 is required, indicate the number of Graduate and Apprentice hours, and slots required per Project I.D. When required, also ensure the ASP1.T0A and ASP1.T0G items are included in AASHTOWare Project (AWP) and that a \$5.00 item price has been properly pre-established for each item. See <u>FDM 19-15-90</u> for Pre-Established price item guidance.
- B. Special Provisions (refer to FDM 19-15). Review special provisions to ensure:
 - 1. Formatting is up-to-date and correct (for questions contact Rielly O'Donnell at 608-261-6116).
 - 2. The latest STSP template and articles are being used.
 - 3. Every "S" article and "SPV" article has corresponding bid items in the completed AWP estimate and are included in the Miscellaneous Quantities.
- C. Check plan sheets for proper order (see FDM 15-1-1 for guidance).
- D. Has all the railroad coordination been performed and approvals been received from the DTIM Bureau of Transit, Local Roads, Rails and Harbors?
- E. Does the contract have Status 1 for all the ROW acquisition at PS&E? If not, contact the region project manager regarding viability of submittal of this PS&E.
- F. Are all the Utility interests clear at PS&E? If not, the viability of submittal of this PS&E should be discussed with the district or within the district.

<u>Plans</u>

A. Is all information shown inside printing margins?

- B. Lettering size:
 - 1. Minimum lettering height on required 11"x17" originals shall be 0.06 inches. (except right of way plat)
 - 2. Titles should be approximately 0.10 inch lettering height on required 11"x17" plan originals.
 - 3. If lettering sizes are too small, correction will be necessary to make plan notes readable in the required 11"x17" plans.
- C. Notes:
 - Check that notes referring to standard detail drawings refer to the name of the drawing, not the number.
 - Check that construction notes are solid line notes; not screened line notes, etc
 - Check for notes with blank spaces (data fields) and either fill in the data field with appropriate information or remove the note completely.
- D. Plan details check that:
 - Special details pertain to the contract and all required special details are in the plan (no more, no less)
 - Details are not crammed together add lines for separation if appropriate
 - Details are correct, clear and easy to read.

Title Sheet (FDM 15-1-10)

A. Project location map check for:

- North Arrow
- Town and Range
- Correct Project(s) location
- Begin and End Project notes
- Begin and End notes for construction work outside project limits
- Equations
- Highway designations shown
- Road or street names if referred to in special provisions
- County names, if more than one
- Graphic Scale
- Structure Numbers (on which work is being done)
- B. Design Designation is it filled in?
- C. Net centerline length (listed to three decimal places to right of decimal point). Refer to FDM 15-1-10.8:
 - Project breakdown (if more than one Project I.D. is part of a plan set, give a separate "Net Length of

Centerline" for each Project I.D., even if the length is 0.000 for the Project I.D.)

- Total.

- D. Titles check that:
 - Correct format is used: (refer to FDM 15-1-10, "Project Title.")
 - Each project title and sub-title should match FIIPS exactly (contact region for this FIIPS information), except all words should be spelled out on the title sheet and on all other PS&E documents.
 - The title on the engineers' estimate is consistent with the title sheet.
- E. Signature Block:
 - Ensure that all required signatures have been obtained. Signature lines for required signatures only remove any not needed.
 - Include a consultant block with professional engineer stamp, signature, and date when appropriate.
 - Include names of Surveyor, Designer, Region Examiner, and Region Supervisor.
- F. Conventional Symbols
 - Commonly used symbols are preprinted on the title sheet. Additional symbols should be added below the preprinted symbols on the title sheet when appropriate.
- G. State map:
 - The county in which the project is located should be cross-hatched and the project location shown.
- H. "Order of Sheets" block:
 - Is it the latest standard format?
- I. Check State Project numbers:
 - In blocks near center of title sheet
 - Upper right hand corner (one project number per line)

J. Margin information: (See <u>FDM 15-1-10.3</u> "Margin Information", <u>FDM 15-1 Attachment 5.1</u> example, and the appropriate <u>FDM 15-5 Attachment 5.1</u> "Title Sheet" plan sheet vehicle.)

- Project information should be in left binding margin, oriented to be read when facing the title sheet from the left edge (see procedures referenced above for orientation clarification).

Written Material, Typical Section and Detail Sheet

A. Preferred order of Section 2 sheets: (FDM 15-1-1)

- 1. Written material.
- 2. Project Overview.
- 3. Typical sections.
- 4. Construction details.
- 5. Layout details:
 - a. Non-typical sections
 - b. Intersections
 - c. Interchanges
 - d. Contour Maps
 - e. Cross Section Match line
 - f. Erosion Control and Drainage
 - g. Storm Sewer and Utilities
 - h. Planting
 - i. Signing
 - j. Lighting
 - k. Traffic Signals
 - I. Pavement Marking
 - m. Traffic Control and Construction Staging
 - n. Fencing
 - o. Alignment

- B. First Section 2 Sheet: (FDM 15-1-15)
 - 1. The first Section 2 sheet should include:
 - a. Utility list and contact persons
 - b. DNR contact person (if plan has erosion control plan)
 - c. Plan-specific customized list of unusual or non-standard abbreviations
 - d. Surface boring log when salvaging Asphaltic Pavement or Pulverizing & Relaying Asphaltic and include lab tests when Salvaged Asphaltic Pavement is bid.
 - e General notes. Notes should not duplicate standard specifications or special provisions.
- C. Typical Sections: (FDM 15-1-15)
 - 1. All portions of the mainline
 - 2. Major side roads
 - 3. Minor side roads
 - 4. Ramps and tapers
 - 5. Existing sections when appropriate
 - 6. Commercial and residential driveways
 - 7. Temporary construction
 - 8. Check that typical sections include widths, thicknesses, slopes, station to station, right or left, traffic lanes,
 - a. Show Tie Bars and Dowel Bars, where required. Bars placed in wet concrete are incidental. Bars to be drilled in are paid under item 416.0610 Drilled Tie Bars and 416.0620 Drilled Dowel Bars
 - b. Tined (when appropriate), include with the Concrete Pavement item label when "tining" is required (see <u>FDM 15-1-15</u>).
 - c. Curb and gutter, sidewalk, topsoil or salvaged topsoil, underdrains, geotextile fabrics, removals, islands, barriers, etc.
 - 9. Check that typical section labels match current bid item titles.
 - 10. The pavement structure of short sections of side roads, frontage roads, private drives and ramp tapers may be shown by note on plan or detail sheets.

Construction Details (FDM 15-1-20)

A. Examples of items of construction requiring details.

- 1. Riprap, retaining walls, special inlets**, special covers*, pipe railing, steps, driveways, transitions, planting charts, etc.
 - * Is approximate weight listed on special covers?
 - ** Minimum embedment required; ultimate soil bearing capacity required; engineering properties of retained and foundation soils required.
- B. Check for:
 - 1. Special details which conflict with standard practices.
 - 2. Special details, which conflict with SDDs, called for in the plan.
 - 3. Layouts and dimensions as appropriate.
- C. Frequently used special details and CADD cell special details:
 - 1. Are they correct for this plan?
 - 2. Are dimensions filled in or corrected?
 - 3. Unnecessary information or options included? If so, remove.
 - 4. Are they updated to current spec book terminology (e.g., upper layer/lower layer for asphalt pavement and crushed aggregate base course now is base aggregate dense)?
- D. Bid Items:
 - 1. Are there bid items to cover the work shown?
 - 2. Are the bid item titles correctly shown on the special detail (must match special provisions and estimate exactly)?
- E. Check "Brand Name" labels (proprietary item titles) which are correct only if:

- 1. The list includes three names as approved equals.
- 2. The name is on the Product Selection List. (FDM 19-1-5)
- 3. On a project-by-project basis, approval has been received from the specific region's CO Project Development Liaison engineer. This approval is acquired via an email letter justification for each proprietary item explained and approval requested. The approval is granted when the region's CO Project Development Liaison engineer replies to the email letter with an approval statement for which items per project have been approved.
- F. If special provisions or standard specifications say "as shown" or "detailed on plans", check for the detail.
- G. Check for appropriate use of:
 - 1. Items marked "by others", "in place", or "existing"
 - 2. The term "State furnished, contractor installed".
 - 3. The term "required", when necessary to understand the detail

H. Include a customized (plan-set specific) "Order of Section 2 Sheets" list on the first Section 2 sheet for projects that have many construction details and could benefit from this list.

Layout Details (FDM 15-1-20)

A. Non-typical sections, Intersections, and Interchanges:

- 1. Concrete pavement grades and curb and gutter grades shown for non-typical sections
- 2. Intersections and interchanges shall be shown on detail sheets
- 3. Islands; check for dimensions & type (asphalt, concrete, etc.)
- 4. Are radii, taper lengths, turning lanes and passing lanes clearly dimensioned for field layout?
- B. Erosion Control and Drainage:
 - 1. Shall be shown on detail sheets or included on plan and profile sheets.
- C. Storm Sewer and Utilities:
 - 1. Shall be shown on detail sheets.
- D. Permanent Sign Details
 - 1. Check that the BTO, Traffic Design Section has created the sign layout sheets PDF file or supplied to the BPD, Proposal Management Section the required hard copy sign plate drawings.
- E. Pavement Marking Details:
 - 1. Shall be shown on detail sheets.
 - 2. Check for conflict with SDD's.
 - 3. Check for correct bid item titles or correct marking "type" labels which match SDD terminology defined by detail (such as "Centerline," "No Passing," "Laneline," "Edgeline," etc.) on construction details.
 - 4. Curb Ramp Detectable Warning Fields must be labeled on plan.
- F. Traffic Control and Construction Staging:
 - 1. Check and identify items typically bid separately from the item of Traffic Control, such as:
 - Temporary delineators and posts
 - Removing pavement marking
 - Temporary pavement marking, stop lines, removable tape
- G. Alignment Diagrams:
 - 1. Either separate detail sheets or alignment shown on plan sheets.

Miscellaneous Quantities Sheets (FDM 15-1-30)

- A. General layout:
 - 1. Lettering should be at least 0.06 inch height on required 11"x17" plans.
 - 2. Check that MQ listings start with the lowest item number item at the top left of each sheet and that MQ sheets are organized numerically based on the item numbers included on each MQ sheet.
 - 3. Check for use of line-work to separate tables or entries in tables.
 - 4. Check that quantities shown on various tables on detail sheets are summarized on miscellaneous quantities sheet.
 - 5. On plans with multiple projects or multiple categories, check that quantities are split accordingly and labeled. Quantity breakdowns by project and/or category are required, and each breakdown category

must have a subtotal.

- 6. Ensure that multiple columns of lists for a single item have a SUB-TOTAL for each column and that each single item has a TOTAL clearly shown.
- 7. Check to ensure non-participating items and quantities are labeled. (This may be accomplished by designating the proper estimate category under which the non-participating item is included.)
- 8. Check for proper unit of measure.
- 9. Follow through to the engineer estimate with any changes.
- 10. Quantity totals on miscellaneous quantity sheets must agree with project totals in engineers estimate.

B. Check for the following special information:

- 1. Ensure SAME DAY PAVEMENT MARKING POLICY is used on ALL rural type resurfacing contracts constructed under traffic.
- Ensure that for the item "Removing Small Pipe Culverts," all pipes from 12" diameter, but smaller than a 60" diameter, are listed for payment. Also ensure a DESCRIPTION column is included giving the diameter, length, and type of pipe to be removed at each location. (See example in <u>FDM 15-1</u> <u>Attachment 5.21</u>)
- 3. Ensure all bridges to be removed with a span length of 20' or greater, all bridge-like structures to be removed with a span less than 20', all rectangular culvert structures to be removed of any size, and all non-rectangular culverts to be removed which are 60" diameter or larger, are paid for under "Removing Old Structure, (Station)"
- 4. Whenever possible all removal items (other than those standard "204." items which have a removal title already designated) should use the appropriate standard "204.9xxx" items, based on the correct Unit of Measure intended, not an SPV item.
- C. Earthwork Summary:
 - 1. An earthwork summary shall be included for all grading projects
- D. Drainage Table:
 - 1. For the culvert pipe items, metal thickness(es) and concrete pipe class(es) are required to be shown.
 - 2. Are class IV or V culverts or storm sewer specified without any apparent reason? (See <u>FDM 13-1-25</u>)
- E. "Lump Sum" and "Each" bid items:
 - 1. Are quantity breakdowns given so the contractor can bid the item?
 - 2. Is the amount of work reasonably non-variable for the "Each" bid items?
- F. Quantity Accuracy:
 - 1. Check miscellaneous quantity breakdown of items for completeness of work within the various construction locations.
 - 2. Spot check items for correct totals on miscellaneous quantity sheets and ensure that all item totals match the engineer estimate.

ROW Sheets (FDM 12-15-1)

- If new ROW is required, has a right-of-way plat been included in the plan set?
- Does ROW plat cover entire construction limits?
- Are slope intercept lines shown? Note not applicable to transportation project plats.

Plan and Profile Sheets (FDM 15-1-35)

- A. Do plan sheets cover all construction areas?
- B. Begin and End Project notation is required.
- C. All equations should be shown.
- D. Are slope intercept lines shown?
- E. Structure notes are required for:
 - 1. Removing Old Structure, Station ______" items (include old bridge number, length and type).
 - 2. New structures including retaining walls, noise walls and sign bridges.
 - 3. Structure repairs (deck overlays and deck replacements).

F. ROW:

- 1. Are right of way, easement and permit limits shown?
- 2. Is all work, including private entrance, drainage, culverts and riprap, shown inside right-of-way or permit

limits?

3. If plan sheets are also used as ROW plat, then requirements of FDM 12-15-5 must be met.

- G. Culvert notes are required.
- H. Removal of miscellaneous items should be noted.
 - 1. Culvert removal note should indicate type and size.
- I. North arrows, curve notes, stations, road names, etc. should be shown.
- J. Profiles are required for all grading areas, including long driveways and side roads.
- K. Are types of intersection and curb ramp types shown? (Unless correctly covered by a general note.)
- L. New work distinguished from existing facility by legend, note or screening.
- M. If rock excavation is bid, the top of rock lines should be shown and labeled on the profiles.

N. If marsh excavation is bid, a line showing the bottom of marsh should be shown and labeled on the profile.

Cross Sections (FDM 15-1-45)

- A. Are cross sections included for grading areas?
- B. Are earthwork tables required and if so, are they filled in?
- C. Have special earthwork listings been supplied if required?
 - Miscellaneous quantities station-to-station earthwork sheets or earthwork data sheets.
 - Are computer earthwork data sheets supplied in proper format for use in plans?
- D. Is all information within printing margins?

E. If rock or marsh lines are shown, are the Excavation Rock, Excavation Marsh, and Excavation Common items bid? (Note Unclassified Excavation is no longer a bid item.)

AASTHOWare Project (AWP) Estimate

General:

A. Have all the applicable EACH items been included. Refer to items:

- 213.0100, Finishing Roadway (Project)
- 618.0100, Maintenance and Repair of Haul Roads (Project) for all STH, USH, & IH projects but not used for local road projects or those STH, USH, IH projects within a city that has an on-going street maintenance program and where it would be impossible to determine damage from the state project's construction vehicles over others using the same roadways.
- 619.0100 Mobilization
- 642.5xxx, Field Office Type _
- 643.5000 Traffic Control

B. Have the Prepare Foundation LS items (211. xxxx) been considered for performing necessary foundation preparations that resulted from construction outside the contractor's control, especially for asphaltic resurfacing projects or for resurfacing sections of rehabilitation projects? (see <u>FDM 19-5-3</u> for guidance on when to use these items and how to address them appropriately in the plan and MQ listing.)

C. Some standard bid items require STSPs. See information under the Special Provisions Guidelines.

AASHTOWare Project Knowledge Base (AWPKB)

- A. Review <u>PSE Pre-submittal Tasks for Designers</u>
- B. Engineer Estimate Bid Items (General):
 - 1. Check that all the contract work is either covered by a bid item, is specified to be included in pay for other items or is to be done by others.
 - 2. Review all item numbers, descriptions, supplemental descriptions, and units of measure for reasonableness. (Cursory Review)
 - 3. Check that correct asphaltic item(s) is (are) bid.
 - 4. Check that all Asphaltic Incentive items required by WisDOT Standard Specifications have been bid correctly: See item:
 - 460.2000, Incentive Density HMA Pavement (must be used in all projects with any quantity of HMA Pavement)
 - 5. Check that all other desired Incentive items are bid appropriately. See items:
 - 715.0415, Incentive Strength Concrete Pavement
 - 740.0440, Incentive IRI Ride
 - 715.0502, Incentive Strength Concrete Structures.
 - Check that all desired Construction Staking items are bid appropriately. Note that in the same area where "Construction Staking Concrete Pavement" is bid, the items "Construction Staking Base" & "Construction Staking Curb Gutter and Curb and Gutter" are not to be bid separately. See <u>Standard</u> <u>Spec 650.4</u>.
 - 7. Has the plan modified the work under a standard bid item such that additional contract language is required to perform the work? If so, write a special provision modifying the standard bid item. Only define an "SPV" item if the cost is so different that it would be outside of the range of costs typical for that item.
- C. "SPV." (Non-standard) Bid Items (General):
 - Is each item's Supplemental Description title duplicated exactly from category to category as well as for multiple projects in the same contract? Check that each item appears only once. If not, then make appropriate item Supplemental Description corrections to the Project estimates.
 - 2. Is a description format similar to that of a similar standard bid item format being used where appropriate? If not, it should be. Is the unit of measure standard and appropriate?
 - 3. Do the special provisions include an appropriate article for each non-standard "SPV." item and each "S" item in the contract? Does the unit of measure for each non-standard "SPV." item in the Special Provisions match that of the item in the Proposal Estimate?
- D. STSP "S" items:
 - 1. Check that correct item numbers have been used in the project estimates and that there is a special provision article for each of them.
 - 2. Check that the unit of measure for each item in the Proposal Estimate is the correct unit of measure for that item in the Special Provisions.
- E. Quantity Accuracy
 - 1. Rough check quantities of major items.
 - 2. Check that quantities appear reasonable for the Unit of Measure used and for the type and size of project.

Special Provisions Guidelines

The Special Provisions are an important document. It overrides the standard specifications and controls some of the project's work. Use these guidelines to prepare special provisions.

A. Ordering of Special Provisions:

Article	Description
1.*	General
2.*	Scope of Work
3.	Pre-Bid Meeting
4.*	Prosecution and Progress

- 5. Lane Rental Fee Assessment
- 6. Traffic
- 7. Holiday Work Restrictions
- 8. Utilities
- 9. Other Contracts Work by Others
- 10. Relations with Railroads
- 11. Hauling Restrictions
- 12. Information to Bidders (STSPs 107-056 and 107-054 listed first) Environmental Protection and Erosion Control Notice to Contractor Items Archaeological Sites Navigable Waterways Other
- 13. Coordination with Businesses and Residents
- 14. Public Convenience and Safety
- 15. Modifications to Standard Specifications; and Standard Special Provisions (STSP) (###.#####.S.01-####.S.02,03,04,...) arranged in numerical order in accordance with the Standard Specifications
- 16. Non-Standard Bid Items; (SPV.####.01 SPV.####.02, .03, .04, .05....), arranged in numerical order

*NOTE: These 3 articles are in EVERY set of Special Provisions. Other articles may or may not be included.

B. Consistency between Prosecution and Progress article and Project Completion Date provided in the AWP Proposal in the "Time" tab. Also, keep the project consistent with respect to working days vs. calendar days. Do not redefine working days or calendar days. Other guidelines for this article:

- 1. Include information that may affect a contractor's schedule of operations, such as migratory birds' nests, fish spawning dates, any special arrangements with railroads or utilities that may affect when a contractor can do work, or areas where a contractor cannot do work.
- 2. If the contract is a completion date contract, do not provide the completion date within this article.
- 3. Ensure that the Contract Time for Completion (DT1923) is consistent with the other PS&E documents and AWP Proposal "Time" tab.
- 4. For further guidance on writing a Prosecution and Progress article, refer to FDM 19-15-15.

Once the time frame for the work is determined, consider the following:

- 1. If it is likely that there will be HMA placed outside of the timeframes in <u>FDM 19-5-3.2</u>, include the HMA Cold Weather Paving bid item.
- If it is likely that there will be pavement marking placed late in the construction season, include the Pavement Marking Late Season STSP. Refer to <u>FDM 19-5.3.2</u>.

C. Enhanced liquidated damages: Prior approval needed from the appropriate BPD Project Development Liaison Engineer (see <u>FDM 19-1 Attachment 1.2</u>) for using enhanced liquidated damages or interim liquidated damages greater than the standard liquidated damages provided in the standard specifications. See <u>FDM 11-2</u> for guidance on determining the dollar amount of Interim Liquidated Damages. For additional information regarding interim liquidated damages in contracts, refer to <u>FDM 19-15-2.5</u>.

D. Real Estate issues:

- 1. If a real estate issue affects a contractor's ability to do work at a particular time, it needs to be addressed in Prosecution and Progress article.
- 2. If the contractor needs to perform any razing and removals, the special provisions need to address how asbestos will be removed, and who will remove it.

E. Proprietary Items: Specifying sole-source proprietary products requires a Region approved Proprietary Product Justification. Refer to <u>FDM 19-1-5</u>. Unless Proprietary Product Justification has been approved by the Region PDS Chief, three or more product choices must be listed within the Special Provisions.

F. Include all necessary items in the contract. For example, if the plan letter states that plant surveillance will be required for two years, make sure that the item of Plant Surveillance is included in the proposal.

G. Item titles in the estimate match the item titles in the special provisions. The word "Special" is not needed after the description/title of an SPV item. The fact that it is an SPV item makes it a special item. In addition, the word "Special" is automatically placed at the beginning of the item description by AWP.

H. Avoid repetition. Even if you believe emphasis is needed, avoid repetition in contract documents. Do not repeat language in the special provisions that is already stated elsewhere in the special provisions. Do not repeat language already included in the standard specifications. If the wording or punctuation is different between the references, and the intent is inadvertently changed, the contractor may be confused and interpret the contract differently from the designer's intent. If the contractor files a claim, courts will typically rule against the drafter of ambiguous or contradictory language, in this case against the department.

I. Check references used in specials against the Standard Specifications book.

J. Lane Rental Fee Assessment: Lane rental language shall be included as an article. Do not use a bid item for lane rental. Lane Rental will be assessed using the administrative item "Failing to Open Road to Traffic".

K. Check all articles for consistency. For example, one article may state that a minimum 48-hour notice is required for a particular action whereas another article may state that only a 24-hour notice is necessary. This often happens in articles addressing traffic control or erosion control items. Refer to #8 above.

L. Any bid item that has an "S" suffix or an SPV prefix requires an article in the special provisions. If writing an article for a standard bid item include the bid item number in the title. For example, "Grouted Riprap Heavy, Item 606.0700". Some standard bid items also need an article in the special provisions. The following table summarizes the standard bid items that may require an STSP in the Special Provisions:

Bid Item Number	Bid Item Name	STSP Number	Information Needed
208.1100	Select Borrow	208-005	Gradation requirements
405.0200	Coloring Concrete Custom	405-020	Coloring specifications
405.1000	Stamping Colored Concrete	405-100	Coloring and stamping specifications
502.3101	Expansion Device	502-020	Materials and manufacturer specifications
611.8110	Adjusting Manhole Cover	611-005	Measurement tolerances
632.9109	Landscape Planting Surveillance and Care Cycles	632-005	Daily damage amount assessed
645.0115	Geotextile Type ES	645-040	Fabric properties
645.0125	Geotextile Type MS	645-030	Fabric properties
645.0135	Geotextile Type SR	645-035	Fabric properties
645.0240	Geogrid Type MR	645-024	Fabric properties
645.0260	Geogrid Type SSR	645-026	Fabric properties
648.0100	Locating No-Passing Zones	648-005	Spotting sight distance for 55 mph
715.0710	Optimized Aggregate Gradation Incentive	715-005	Requirements for slip form concrete paving

- M. Numbering .S items and SPV items.
 - 1. Use numbers for sequential ordering instead of letters. For example, suppose the bid item 651.2000.S "Install Traffic Signal Controller & Cabinet (location)" is needed at three locations: Apple Street, Berry Street and Cherry Street. The items should appear on the estimate as:
 - 651.2000.S Install Traffic Signal Controller & Cabinet
 - 01. Apple Street
 - 651.2000.S Install Traffic Signal Controller & Cabinet
 - 02. Berry Street
 - 651.2000.S Install Traffic Signal Controller & Cabinet
 - 03. Cherry Street
 - 2. The title of the article written for the specials should be Install Traffic Signal Controller & Cabinet, Apple Street, Item 651.2000.S.01; Berry Street, Item 651.2000.S.02; Cherry Street, Item

651.2000.S.03. Number and title articles for SPV bid items in the same manner. For example, Inlet Screen Type M, Item SPV.0060.01; Type H, Item SPV.0060.02; Type W, Item SPV.0060.03.

- N. SPV items: Refer to FDM 19-15-80 for guidance on writing articles for SPV items.
- O. STSP Changes:
 - 1. Do not change an STSP unless there is a legitimate reason to do so. Contractors are familiar with the STSP's and have expectations regarding their content.
 - 2. Explain changes made to STSP's in the plan letter.
 - 3. If an STSP is changed and that STSP has a corresponding bid item:
 - Change the title of the bid item and the title of the revised STSP for example, add "Special" to the end of the item name.
 - Change the ".S" item number to an SPV item number.
 - Eliminate the date and parentheses found at the end of the STSP document.
 - 4. STSP's are "living" documents. Changes are frequently made to these documents, that is, one of the reasons why many STSP items are not standard bid items. For this reason, insert the latest STSP in the special provisions.
 - 5. When using STSP's, include all necessary information, such flagging rates for the railroad. STSP's and daily damage amounts for Landscape Planting Surveillance and Care Cycles.
 - 6. For guidance on STSPs, refer to FDM 19-15-85.

P. Abbreviations: Refer to <u>Standard Spec 101</u> and <u>FDM 19-1 Attachment 1.1</u> for some WisDOT abbreviations. When using other abbreviations within articles, use standard protocol in introducing the abbreviation.

Q. Word-Processing Issues:

- 1. Use people who have been trained in how to create special provisions to type the specials. They know how to properly use the template that has been prepared for developing special provisions.
- 2. Do not use formatting such as bold or underlined text for emphasis; all contract language is equally important.
- R. Geotechnical Issues:
 - Walls: Minimum embedment depths of 1'-6" or greater (dependent on wall type) required. Also, provide ultimate soil bearing capacity values on the plan. The engineering properties of the foundation and retained soils must also be shown, usually in a table. Refer to the department's <u>Bridge Manual Chapter</u> <u>14</u> for more information.
 - 2. Geotextile/Geogrid:
 - If DF Fabric: Schedule A, B, or C? (For structure work, usually A.) These items will have separate item numbers.
 - Geotextile Types ES, MS, and SR and Geogrid Types MR and SSR require special provisions. Fabric properties are usually provided in the project's geotextile report.
 - 3. Pre-drilling piling into rock: Measure from the bottom of the hole to the bottom of footing, not just the distance into the rock.
 - 4. Pile Points: Generally, not needed unless driving into soils with cobbles and boulders, or into weathered bedrock.
 - 5. Pile Lengths: Soil drillers should have taken the borings to at least the anticipated depth of the pile tips.

S. Contract Time for Completions. The contract completion time provided on the time completion chart, i.e. the number of working days, the number of calendar days, or a completion date, must be consistent with what is conveyed in the Prosecution and Progress article as well as AWP in the "Time" tab. For further guidance, refer to FDM 19-10-30.

- T. Inserts:
 - 1. After submittal of the PS&E all changes to the special provisions shall be made with an insert. Do not resubmit a revised set of special provisions without prior approval
 - 2. If changes are needed in say one paragraph of an article, just send in the paragraph as an insert in which there are changes. If minor changes are needed throughout the entire article, send in the entire article as an insert and highlight the changes needed.
 - If an insert includes adding an STSP, simply give direction to add the STPS. Do not paste the entire STSP in the insert. If a portion of the STSP is being modified, indicate the modification only in the insert.

- 4. If an insert consists of a new or resubmitted article, make sure the proper Special Provision formatting guidelines are followed.
- 5. For further guidance on e-submitting inserts, refer to FDM 19-10-1.2.4.

Questions? Contact the Special Provisions Engineer at 608-261-6116.

Also refer to FDM 19-40 Exhibit 1.2 Standard Detail Drawings (Examiner's List).



FDM 19-40 Exhibit 1.2 Standard Detail Drawings (Examiner's List)

February 15, 2023

STANDARD DETAIL DRAWINGS (Examiner's List)

These drawings will be included when applicable in plans scheduled for the May 2023 PS&E due date Project Letting Process.

MANHOLES, CA	ATCH BASINS AND INLET COVERS
8A5-19a ^(A)	Inlet Covers Type A, H, A-S, H-S, & Z
8A5-19b ^(A)	Inlet Covers Type B, B-A, C, MS, MS-A & WM
8A5-19c ^(A)	Inlet Covers Type F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
8A5-19d ^(A)	Inlet Covers, Type BW, Manhole Covers, Type K, J, J-S, L & M
<u>Note:</u> ^(A)	Sheets "a," "b," "c," & "d" of SDD 8A5 are independent of each other. See design notes on SDDs for cover placement.
8A8-2	Catch Basins 3-FT, 4-FT, 5-FT, and 6-FT Diameter
8A9-2	Catch Basins 2x3-FT and 2.5x3-FT
8B9-3	Manholes 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, and 10-FT Diameter
8B10-2	Manholes 3x3-FT, 4x4-FT, 5x5-FT and 6x6-FT
8B11-2	Manholes Variable Tee and Special 4-FT Diameter
8C6-2	Inlets 3-FT and 4-FT Diameter
8C7-2	Inlets 2x2-FT, 2x2.5-FT, 2x3-FT and 2.5x3-FT
8C8-2	Inlet Median 1 and 2 Grate
8C9-2	Inlets Median 3 and 4 Grate
8D1-22a, b	Concrete Curb & Gutter, Concrete Curb, Ties & Gutter Applications (Always include sheets a & b together) - All items labeled as Type A, G, K, R or TBTT include tie bars, (Curb types = G, J, A, D) (18" C&G = A, D) (30" C&G = A, D, K, L, G, J) (36" C&G = A, D) (Roundabout C&G = R and T) (Thrie Beam Transition C&G = TBT and TBTT), Note: Non-standard C&G needs SPV item and construction detail.
8D2-7a, b &c	Concrete Surface Drains, Flume Type at Structures (Always include sheets a, b & c together) (Pavement Ties required at existing bridge wing walls) (Bridge Section must be notified to include tie bars in wing wall plans for new bridges)
8D3-8a & b	Concrete Surface Drains, Drop Inlet Type at Structures (Always include sheets a & b together) (Pavement Ties required at existing bridge wing walls) (Bridge Section must be notified to include tie bars in wing wall plans for new bridges) (Bid Inlets 2x2 FT.)
8D4-6	Concrete Surface Drains and Asphaltic Flumes (For use at ends or intermediate areas of Concrete C&G)
8D5-20a	Curb Ramps Types 1 & 1-A (List type on plan) (See FDM 11-46-10) Always requires 8D5-b, c, d, e, f & g
8D5-20b	Curb Ramps Types 2 & 3 Always requires 8D5-a, c, d, e, f & g
8D5-20c	Curb Ramps Type 4A & 4A1 Always requires 8D5-a, b, d, e, f & g
8D5-20d	Curb Ramps Type 4B & 4B1 Always requires 8D5-a, b, c, e, f & g
8D5-20e	Curb Ramps Type 5, 6, 7A, 7B & 8 Always requires 8D5-a, b, c, d, f & g
8D5-20f	Curb Ramps Radial Detectable Warning Field Applications Always requires 8D5-a, b, c, d, e & g
8D5-20g	Curb Ramps Rectangular and Radial Detectable Warning Plates Always requires 8D5-a, b, c, d, e & f
8D13-2	Slotted Corrugated Metal Pipe Surface Drains (Bid items 521.2005.S)
8D14-2	Slotted Vane Drain (Paid for as a 611.9900.S)
8D15-5a	Edgedrain Outlet and Outfall Markers Always requires "b" or "c" of 8D15

8D15-5b	Edgedrain and Base Aggregate Open Graded
8D15-5c	Edgedrain and Base Aggregate Open Graded
8D16-11	Concrete Gutter, Curb & Gutter and Pav't. Ties (C&G = 19", 22" & 31") (Gutter = 24") (Typically only used in Milwaukee)
8D17-6	Manholes, Manhole & Inlet Covers (M.H.= 11, 12, 13, & 14)
	(Covers = Q, R, W, X) (Typically only used in Milwaukee)
8D18-3	Driveway and Sidewalk Ramps Types X & Y
8D19-3	Driveway and Sidewalk Ramps Type Z
8D20-1	Driveways with Curb and Gutter Returns
8D21-1	Driveways without Curb and Gutter
8D22-1	Driveways without Curb and Gutter Resurfacing Projects Rural
8E5-2	Sodded Backslope Flume and Intercepting Embankment
8E8-3	Typical Installations of Erosion Bales/Temporary Ditch Checks (use double row of bales in channels, ditch checks, or altered flow applications; this is always required with items 628.1104 and 628.7504.
8E9-6	Silt Fence (do not use silt fence in channels)
8E10-2	Inlet Protection Type A, B, C and D
8E11-2	Turbidity Barrier
8E12-1	Silt Screen
8E14-1	Tracking Pad
8E15-1	Culvert Pipe Checks (measured and paid by the individual bag used in the check)
8F1-11	Apron Endwalls for Culvert Pipe
8F2-1	Apron Endwalls for Pipe Arch and Elliptical Pipe
8F3-3	Details for Pipe Cattle Pass, Concrete Endwalls & Steps (Bid "Concrete Masonry, Endwalls" and "Concrete Steps" where req'd.)
8F4-8	Joint Ties for Concrete Pipe and Concrete Collar Detail (Include with concrete culvert pipe or concrete storm sewer outfalls. Also include with Concrete Collars for Culvert Pipe, bid item 520.8000)
8F6-4	Reinforced Concrete Apron Endwalls for Pipe Underdrain (Detailed for 4" & 6" PVC, Sch. 40 pipe outfalls) (612.0804 item = 4" endwall & 612.0806 item = 6" endwall) (Special Details necessary if 8" or 10" P.U. size endwalls req'd.)
8F7-5	Steel Apron Endwalls for Culvert Pipe and Pipe Arch Sloped Side Drains
	(For Sideroads and Driveways, 4:1, 6:1 and 10:1 sloped side drain endwalls. Bid Items 521.1500 - 521.1699 for culvert pipe, 521.1700 - 521.1899 for pipe arch).
8F8-2	Steel Apron Endwalls for Culvert Pipe and Pipe Arch Sloped Cross Drains (4:1 and 6:1 sloped cross drain endwalls. Bid Items 521.0300 - 521.0499 for culvert pipe, 521.0500-521.0699 for pipe arch).
8F10-2	Concrete Masonry Endwalls for Culvert Pipe & Pipe Arch
9A1-14a	At Grade Side Road Intersection, Types "B1", "B2", "C" and "D" and Tee Intersection Bypass Lane (Always include sheet "b" of 9A1) (C&G SDD 8D1 req'd. if Conc. C&G req'd and SDD 8D4 req'd if Conc. or Asph. Flumes req'd.)
9A1-14b	At Grade Side Road Intersection, Type "A1" & "A2" (Island curb nose detail included) (8D1 req'd for C&G and Curb) (8D4 req'd if concrete or asphalt flumes are req'd)
-	ITING STANDARDS
9B2-10	Conduit
9B4-12	Pull Box (Do not use in asphalt pavements over crushed aggregate base course)
9B16-2	Pull Box Non-Conductive
9C2-9	Concrete Bases, Types 1, 2, 5 and 6 (For Traffic Signals and Street Lights) (Type 1-654.0101, Type 2-654.0102, Type 5-654.0105, Type 6-654.0106)
9C3-4	Transformer/Pedestal Bases (Transformer 657.0255-std 11 1/2 "Bolt Circle & Pedestal 657.0100)

9C4-4	Concrete Base Bolt Repair
9C5-10	Concrete Control Cabinet Bases (Type = 6, 7, 8, 9 & 10)
9C6-7	Concrete Control Cabinet Bases, Type 9 Special (item 654.0217) (For use where 2 intersections are served from one T.C. Cabinet)
9C8-6	Concrete Base, Type 7 (654.0107)
9C9-6	Concrete Base, Type 8 (654.0108)
9C10-3	Transformer Base for 15" Bolt Circle (Transformer Base Breakaway 13-15 Inch Bolt Circle, 657.0205 & 15-17 Inch Bolt Circle 657.0210)
9C11-10	Concrete Base Type 10
9C12-9a,b	Concrete Base Type 13 (Always include sheets a & b)
9C13-3	Concrete Base Type 10 and Type 13 Extension
9C14-3	Concrete Control Cabinet Base, Type L
9C15-1	Concrete Base Type 10 Special (Also include 9C16)
9C16-1	Concrete Base Type 10 Special Extension (Always include with 9C15)
9D1-5	Cabinet Service Installation (Meter Breaker Pedestal) 656.0200 (Traffic signals or lighting) (Non-cabinet service installations, items 656.0100 Meter Socket & 656.0300 Unmetered, require special details or 9D3)
9D2-3	Signal Control Cabinet Usually required 9C5 and-or 9C6.
9D3-3	Post Mounted Controller Service Installation (Concrete Controller Base, Type 10-654.0220, Pedestal Base-657.0100, Electric Service Meter Socket – 656.0100) (Requires 9C3 and 9C5)
9D4-3	Lighting Control Cabinet 120/240 Volt
9D5-2	L30 Lighting Control Cabinet 240/480Volt
9E1-15a	Pole Mountings for Traffic Signals, Type 2 (Always include 9E1- sheet g)
9E1-15b	Pole Mountings for Traffic Signals and Lighting Units, Type 3 (Heavy Duty) (Always include 9E1- sheet g)
9E1-15c	Pole Mountings for Traffic Signals and Lighting Units, Type 4 (Always include 9E1- sheet g) (Signal on pole) (item 657.0315)
9E1-15d	Pole Mountings for Lighting Units, Type 5 (30 foot) (items 657.0321 and 657.0322) (Always include 9E1- sheet g)
9E1-15e	Pole Mountings for Lighting Units, Type 6 (Always include 9E1- sheet g) (35 foot) (items 657.0326 and 657.0327)
9E1-15f	Pole Mountings for Lighting Units, Type 17 (Always include 9E1- sheet g) (40 feet) (items 657.0336 and 657.0337)
9E1-15g	Hardware Details for Pole Mountings (req'd with all pole mounting SDD's) [Bid as "Traf. Sig. Mtg. Hdwre, (Loc.) - 1 L.S. (item 658.5069) - Only when poles with traffic signals on them are bid]
9E2- 5 ^(B)	Freeway Lighting Unit Pole Wiring (Non-pedestrian traffic area)
9E3- 6 ^(B)	Non-Freeway Lighting Unit Pole Wiring (Pedestrian traffic area)
Note: (B)	At least one of these pole wiring SDDs shall be used when lighting is involved.
9E4-6	Walkway Lighting Unit and Concrete Base, Type 11 (Lighting Units, Walkway Lights = 659.0700; Concrete Base, Type 11 = 654.0111)
9E5-6	Traffic Signal Standard Ornamental Bracket Mountings Typical for 13 ft. or 15 ft. (Aluminum 657.0420, 657.0425)
9E6-5	Traffic Signal Standard Poly Bracket Mountings Typical 13 ft or 15 ft. Aluminum – 657.0420, 657.0425)
9E7-6	Traffic Signal Standard Pedestrian and Flasher Typical Mounting Details (Pedestal Base 656.0100; Traffic Signal Standards, Aluminum, 10-ft.or 3.5 ft657.0405 or 657.0430; Signs Type II Reflective H637.2210 or Type II Reflective H Folding 637.2215 (Stop Signs), Pedestrian Signal Faces 12 - Inch – 658.0412 Pedestrian Push Buttons (includes Pedestrian Signs - List Correct "R10" Sign Designations in Miscellaneous Quantity List; Traffic Signal Standards, 13-ft or 15 ft Aluminum 657.0420 or 657.0425) (SDD 9C2 Concrete Bases, and SDD 9C3 Pedestal Bases)
9E8-9a	Type 9 Pole 15' - 30' Monotube Arm (Always include 9E8 sheet k)
9E8-9b	Type 9 Special Pole 35' Monotube Arm

9E8-9c	Type 9 Special Pole 40' Monotube Arm (Always include 9E8 sheet k)
9E8-9d	Type 9 Special Pole 45' Monotube Arm (Always include 9E8 sheet k)
9E8-9e	Type 10 Pole 15' – 30' Monotube Arm (Always include 9E8 sheet k)
9E8-9f	Type 10 Special Pole 35' Monotube Arm (Always include 9E8 sheet k)
9E8-9g	Type 10 Special Pole 40' Monotube Arm (Always include 9E8 sheet k)
9E8-9h	Type 10 Special Pole 45' Monotube Arm (Always include 9E8 sheet k)
9E8-9i	Type 12 Pole 35' – 55' Monotube Arm (Always include 9E8 sheet k)
9E8-9j	Type 13 Pole 35' – 55' Monotube Arm (Always include 9E8 sheet k)
9E8-9k	General Notes and Hardware Details For Types 9, 10, 9/10 Special, 12 and 13 Poles with Monotube Arms
9E12-1a	Over Height Type 9 Pole 15'-30' for Monotube Arm (Always Include 9E12 sheet e)
9E12-1b	Over Height Type 10 Pole 15'-30' Monotube Arm (Always Include 9E12 sheet e)
9E12-1c	Over Height Type 12 Pole 35'-55' Monotube Arm (Always Include 9E12 sheet e)
9E12-1d	Over Height Type 13 Pole 35'-55' Monotube Arm (Always Include 9E12 sheet e)
9E12-1e	General Notes & Hardware Details for Over Height Type 9, 10, 12 & 13 Poles with Monotube Arms
LOOP DETECT	OR STANDARDS
9F1-4 ^(F)	Details for Installation of Temporary Traffic Signal Loop Detector Wires in any Existing Pavement
9F4-5 ^(C,E)	Loop Detector Installed in New Concrete Pavement, Round CSCP Pullbox
9F7-5 ^(C,E)	Loop Detector Installed in New Concrete Base with New Asphaltic Overlay, Round CSCP Pullbox
9F8-4 ^(C)	Loop Detector Placed in Crushed Aggregate Base (New Asphaltic Pavement)
9F9-5 ^(C,E)	Loop Detector Placed in Crushed Aggregate Base (New Concrete Pavement), with round CSCP Pull Box
9F10-4 ^(C,F)	Loop Detector Installed in Existing or New Asphaltic Pavement with New Asphaltic Overlay
9F11-4 ^(C,F)	Loop Detector Installed in Existing Concrete Pavement with New Asphaltic Overlay
9F12-4 ^(C,F)	Loop Detector Installed in Existing Concrete Pavement
9F13-4 ^(C,F)	Loop Detector Installed in Existing Asphaltic Pavement
9F14-3 ^(C,E)	Loop Detector Installed in New Concrete Pavement, Round CSCP Pullbox, 45 degree Elbows to Pull Box
9F15-4a ^(C,E)	Loop Detector Installed in Base Course with Pull (Splice) Box Off Roadway (Option 1)
9F15-4b ^(C,E)	Loop Detector Installed in Base Course with Pull (Splice) Box Off Roadway (Option 2)
NOTES:	
(C)	Bid "Loop Detector Conduit, item 652.0800
(D)	Bid "Junction Boxes, 8x8x8-inch" item 653.0208
(E)	Bid correct size and item number for "Pull Boxes, <u>x</u> -inch" (see bid items 653.0105 thru 653.0145)
(F)	Loop Detector Slots item 652.0900
9F16-2	Two Loop Detectors Installed in New Concrete Pavement, Round CSCP Pullbox, 45 degree Elbows to Pull Box
	RAFFIC SIGNALS
9G1-4a	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4b	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4c	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4d	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4e	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4f	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G1-4g	Span Wire Temporary Traffic Signal - Always include sheets d-g
9G2-5a	Bridge Temporary Traffic Signal Installations – Always include 9G2-b & c, and 15D33

9G2-5b	Bridge Temporary Traffic Signal Installations – Always include 9G2-a & c, and 15D33
9G2-5c	Bridge Temporary Traffic Signal Installations – Always Include 9G2-a & b, and 15D33
INTELLIGENT T	RANSPORTATION SYSTEMS
9H1-1	Base ITS Controller Cabinet
9H3-1	2 Circuit Meter Breaker Pedestal
9H4-1	2 Circuit Electrical Service Meter Breaker Pedestal and Breaker Disconnect Box
9H5-1	Cabinet Breaker Disconnect Box Installation
9H6-2	Signal Assembly Advanced Flasher Type 1
9H7-1	Signal Assembly Ramp Control Sidemount
9H8-3	Communications Manhole Detail
9H9-2	Communications Vault Type 1
9H10-1	Communications Vault Type - Round
9H11-1	Identification Plaque Requirements and Placements
9H14-1	Wireless Detection Sensor Mounting
9H15-1	Mounted Controller Microwave Detector Assembly and Mounted Controller Installation
9H16-1	Install Wireless Antenna
FREEWAY LIGH	ITING DESIGN
10A1-4	Electrical Handheld Wiring
10A2-3	Identification Plaques Light Poles
10A3-3	Circuit Identification Plaques Sign Bridges
10A4-3	Identification Plaques Underdeck and High Mast Lighting
10A5-3	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
10A6-3	Electrical Details Ground Mount Light Poles Grounded Neutral Systems
10A7-3	Electrical Details Ground Mount Light Poles Phase-to-Phase Systems
10A8-3	Electrical Details Structure Mount Light Poles Isolated Neutral Systems
10A9-3	Electrical Details Structure Mount Light Poles Grounded Neutral Systems
10A10-3	Electrical Details Structure Mount Light Poles Phase-to-Phase Systems
10A11-3	Electrical Details Median Mount Light Poles Isolated Neutral Systems
10A12-3	Electrical Details Median Mount Light Poles Grounded Neutral Systems
10A14-3a&b	Electrical Details High Mast Lighting (Always include sheets a & b)
10A15-4a&b	Electrical Details Underdeck Lighting (Always include sheets a & b)
10A17-5a	Poles Type 7
10A17-5b	Poles Type A
10A17-5c	Poles Type E
10A17-5d	Poles Type F
10A18-5a&b	Luminaire Arms, Single Member & Truss Type, 6-Inch Clamps
MEDIANS	
11A1-6	Maintenance Crossover for Freeways
11B1-5	Concrete Corrugated Median (620.0100)
11B2-2	Concrete Median Nose (Blunt nose, item 620.0200; Sloped nose, item 620.0300)
STRUCTURES	
12A3-10	Name Plate for Structures (for all including retaining walls)
12A4-3	Structure Identification Plaques, Sign Bridge, Ramp Gate, Overhead Sign Supports & Traffic Signals Always required when sign bridge, ramp gate, and overhead sign supports are bid items in a project.
CONCRETE PA	VEMENT STANDARDS
13A3-7	Concrete Pavement Shoulders (Transverse Joint SDD req'd, 13C11 or 13C13)
13A5-5a&b	Shoulder Rumble Strip, Milling (Always include sheets a & b) (item 465.0400 and 416.111)
	Req.'d for both shoulders of freeways and expressways, outside median (see FDM 11-15-1).

13A7-2	Continuously Reinforced Concrete Pavement Repair and Replacement	
13A8-1	Asphaltic Rumble Strips at Intersection	
13A9-1	Concrete Rumble Strips at Intersection	
13A10-2a,b,c&d	2-Lane Rural Shoulder Rumble Strip, Milling (Always include sheets a & b)	
13A11-3a&b	2-Lane Rural Center Line Rumble Strip, Milling (Always include sheets a & b)	
13B1-10	Pavement Details for R.R. Approach (also for asphalt projects)	
13B2-9a&b	Concrete Pavement Approach Slab Sheet a can stand alone. Sheets a and b are required on all IH and USH bridges when Structural Approach Slab in included on the structure plan.	
13C1-19	Concrete Pavement Longitudinal Joints and Ties Req'd. for all Conc. Pav't. (No Sealant)	
13C4-17	Urban Non-Doweled Concrete Pavement (No Sealant & Non-Doweled)	
13C8-2	Concrete Pavement Partial Depth Repair	
13C9-17a,b,c	Concrete Pavement Repair and Replacement . Must use sheets a, b & c together in plan sets. Not to be used when pavement to be overlaid. For overlaid pavement repairs use 13C14.	
13C10-3	Retrofit Dowel Bars (Pay for as "Pavement Dowel Bars Retrofit Warranted", Item 416.0623.S, see STSP 416-010)	
13C11-14a&b ^(F)	Rural Doweled Concrete Pavement. Must use sheets a & b together in plan sets. Includes detail for drilling dowel bars into existing pavement (bid item 416.0620.) Always include SDD 13C1.	
13C13-11 ^(F)	Urban Doweled Concrete Pavement (Transv. Joints) (No Sealant) Note: Includes details for drilling dowel bars into existing pavement (bid item 416.0620.) Always include SDD 13C1.	
NOTE: (F)	Check for tining requirements, Std. Specs. 415.3.8 (Surface Finishing)	
13C14-7a,b,c	Base Patching Concrete. For pavement repairs that are overlaid. Must use sheets a, b, & c together in plan sets.	
13C15-8a & b	Concrete Base. Must use sheets a & b together in plan sets.	
13C16-2a&b	Detail for Right Turn Lane/ Tee Intersection Bypass Lane on a Concrete Highway (Always include sheets a & b) SDD 13C1 required. Also add the appropriate transverse joint SDD.	
13C18-7a	Concrete Pavement Jointing (Always include sheets b – d & f)	
13C18-7b	Concrete Pavement Steel Reinforcement (Always include sheets a, c – d & f)	
13C18-7c	Concrete Pavement Joint Types (Always include sheets a, b, d & f)	
13C18-7d	Concrete Pavement Jointing at Utility Fixtures (Always include sheets a – c & f)	
13C18-7e	Concrete Pavement Jointing and Steel Reinforcement in Roundabouts	
13C18-7f	Concrete Pavement Intersection Boxout for Integral Curb and Gutter (Always include sheets a $- d$)	
13C18-7g	Concrete Pavement Jointing Acceleration/Deceleration Lane	
13C19-3	HMA Longitudinal Joints – Longitudinal joint (centerline & lane line) for main line paving.	
14A1-3	Tree Preservation Details - Riprap must be bid - also bid construction of tree wells or use other pay items.	
14A2-1	Tree Planting Detail - Plant data chart required in plan. Work is covered under the pertinent planting bid items.	
14B7-16a-n	Concrete Barrier Temporary Precast, 12'-6" - All sheets are needed. Review the need for crash cushions or arrays.	
14B8-2a-e	Crash Cushion/Sand Barrel Array and other Temporary Layout Details - All sheets are needed.	
14B11-3	Concrete Barrier, Double Faced - Note: See sheets "a" and "b" of SDD 14B22 for Concrete Barrier, Single Faced. New concrete barrier installations require the use of single slope barrier design.	
CLASS "A" BEAM GUARD & THRIE BEAM STANDARDS		
14B15-11a-c	Steel Plate Beam Guard, Class "A" Installation & Elements – Always include sheets a-c	
14B16-4a&b	Anchorage for Steel Plate Beam Guard Type 2 - Requires SDD 14B15.	
14B18-6a	Steel Plate Beam Guard, Class "A", (At Bridges, Obstacles and Sideroads/Driveways) - Requires SDD 14B15.	

14B18-6b	Steel Plate Beam Guard, Class "A", at Median Approach to Bridges - Usually requires SDD 14B15 - a&b, 14B18 - a, and 14B20 - a and one or more of the Thrie Beam Structure Connection SDDs.
14B20-12a	Steel Thrie Beam Structure Approach (item 614.0200) - Usually requires SDD 14B15.
14B20-12b	Steel Thrie Beam Structure Approach, Connection to Square End Parapets - Usually requires SDD 14B15.
14B20-12c	Steel Thrie Beam Structure Approach, Connection to Vertical Faced Parapets - Usually requires SDD 14B15.
14B20-12d	Steel Thrie Beam Structure Approach, Connection to Sloped End Parapets - Usually requires SDD 14B15.
14B20-12e	Steel Thrie Beam Structure Approach, Connection to Bridge Railing Type "F" and "W" - Usually requires SDD 14B15.
14B20-12f	Steel Thrie Beam Structure Approach, Connection to Bridge Railing Type "M" - Usually requires SDD 14B15.
14B20-12g	Steel Thrie Beam Structure Approach, Connector Plate Detail - Usually requires SDD 14B15.
14B20-12h	Steel Thrie Beam Structure Approach, Single Slope Attachment - Usually requires SDD 14B15.
14B22-7a&b	Concrete Barrier, Single-Faced (With Anchorage) - design may also need SDD 14B20.
14B24-9a,b&c	Steel Plate Beam Guard Energy Absorbing Terminal - Always include 14B15.
14B25-1	Steel Plate Beam Guard, Class "A", Over Low Fill Culverts - For use over low fill box, and pipe culvert structures with cover less than 4'-0". Requires SDD 14B15.
14B26-5a-h	Steel Thrie Beam Bullnose Terminal - may need SDD 14B20.
14B27-1a,b&c	Steel Plate Beam Guard Short Radius Terminal - requires SDD 14B15.
14B28-4a&b	Guardrail Mow Strips - refer to backside for associated SDDs.
14B29-1	Safety Edge - Include with paved shoulders 3 feet wide or less; or if the plans show safety edge.
14B41-3a&b	Single Slope Roadside Retaining Wall
14B42-7a-d	Midwest Guardrail System (MGS)
14B43-4a-c	Midwest Guardrail System Long Span (MGS L) - Requires SDD 14B42.
14B44-4a-c	Midwest Guardrail System (MGS) Terminal - Requires SDD 14B42.
14B45-5a-l	Midwest Guardrail System (MGS) Thrie Beam Transition - Requires SDD 14B42.
14B47-4a-g	Midwest Guardrail System (MGS) Type 2 Terminal - Requires SDD 14B42.
14B48-1a, b	Retrofit Cantilever Blunt End
14B49-1a,b	Retrofit Cantilever Sloped End
14B50-1a,b,c	Thrie Beam Approach Retrofit Installation of Missing Post
14B51-2a,b,c	Anchor Post Assembly Top-Mounted
14B52-3a-c	Cable Barrier Type 1 Layout
14B53-2a-i	Short Radius Beam Guard (MGS)
CONCRETE BARR	
14B32-10a-h	Concrete Barrier, Single Slope
14B33-2a-h	Concrete Barrier, Single Slope Thrie Beam Anchorage
14B34-2a-c	Concrete Barrier, Single Slope, Type B
14B35-2a-f	SF NJ Shape Concrete Barrier to Single Slope Concrete Barrier Transition
14B36-2a-j	SF F Shape Concrete Barrier to Single Slope Concrete Barrier Transition
14B37-2a&b	DF NJ Shape Concrete Barrier to Single Slope Concrete Barrier Transition
14B38-2a-d	DF F Shape Concrete Barrier to Single Slope Concrete Barrier Transition
14B39-2a,b,c	Single Slope Concrete Barrier to Single Slope Concrete Barrier Height Transition
14B40-2a-j	Vertical Shape Concrete Barrier to Single Slope Concrete Barrier Transition
WAYSIDES	
14C1-3	Timber Rail Guard Fence, Curb & Guard Post and Marker Post

14C2-3	Historical Marker Construction	
14C3-4	Roadside Picnic Table	
14C6-6a&b	Wayside Well Shelter and Pump and Well Platform	
14C7-4a&b	Picnic Table, Single Pedestal (Both drawings always required)	
15A1-13a,b	Marker Posts for R/W - Markers ROW item 633.5100.	
15A3-2a&b	Flexible Marker Post for Culvert End - Markers culvert end item 633.5200.	
15А4-7а-е	Delineators and Delineator Posts	
15A7-2	Object Marker for Hazardous Culvert	
15B1-8a&b	Fence Woven Wire (Both drawings required)	
15B3-15a&b	Chain Link Fence (Includes vehicle & Pedestrian gate details) (Both drgs. Always required)	
15B10-1a,b&c	Wood Gate (Double Leaf) (All details required) (see STSP Doc 616-040)	
15B11-1a&b	Wood Gate (Single Leaf) (All details required) (See STSP Doc 616-035)	
15B12-1a&b	Pipe Gate Details (All details required) (See STSP Doc 616-045)	
15C2-8a	Barricades and Signs for Mainline Closures Always requires b	
15C2-8b	Barricades and Signs for Various Closures Always requires a	
15C2-8c	Detour Signing for Mainline Closures	
15C2-8d	On-Ramp Closure	
15C2-8e	Off-Ramp Closure	
15C2-8f	Advanced Width Restriction Signing	
15C3-5	Barricades and Signs for Sideroad Closures	
15C4-5	Traffic Control, Advance Warning Signs, 45 MPH or Greater Two-Way Undivided Road Open to Traffic (For projects open to all traffic.)	
15C5-5	Traffic Control, Advance Warning Signs, 40 MPH or Less Two-Way Undivided Road Open to Traffic (For projects open to all traffic.)	
15C6-10	Signing and Marking for Two Lane Bridges (i.eNarrow Bridge Marking) (Includes W5-52 Signs, pay as Signs Type II, Reflective F, item 637.2230 and wood posts, 4" X 6"x 12', item 634.0612)	
PAVEMENT MARK	<u>(ING</u>	
15C7-15a	Pavement Marking Symbols (Arrows, Preferential Lane Symbol and Handicap Parking Stall Symbol) (Show location in plans)	
15C7-15b	Pavement Marking Words	
15C7-15c	Pavement Marking Arrows	
15C7-15d	Roundabout Arrows	
15C7-15e	Pavement Marking for Bike Lane	
15C8-22a	Permanent Longitudinal Pavement Markings (15C8 sheet "a" stands alone)	
15C8-22b	Temporary Longitudinal Pavement Markings	
15C8-22c	Pavement Marking (Turn Lane) (Two Way Left Turn Lane, Always requires 15C8- a)	
15C8-22d	Pavement Marking Turn Lanes (Arrow and word marking placement for turn bay greater than 48'. Always requires 15C8-a	
15C9-12a	Signing and Pavement Marking Details for R. R. – Highway Grade Crossing	
15C9-12b	Truck Stopping Lane Pavement Markings	
TRAFFIC CONTROL (See also 15C2, 15C4, 15C5 & 15C6)		
15C11-10a,b	Channelizing Devices (Sheet a, Flexible Tubular Marker Posts and Bases, items 643.0500 and 643.0600). Add 15% undistributed quantity to posts & bases for maintenance replacements. (Sheet b, Traffic Control Drums, Barricades Type II & III, Cones 42" and Vertical Panels)	
15C12-9a	Traffic Control for Lane Closure with Flagging Operations - This detail is only appropriate for daytime lane closures on 2-lane roadways - special details required for any closure more extensive than daylight flagging operation.	
15C12-9b	Traffic Control, Lane Closure with Automated Flagger Assistance Device	
15C14-4	Aerial Enforcement Bars Pavement Marking Details	

15C18-7a	Median Island Pavement Marking
15C18-7b	Pavement Markings Median Island Nose
15C18-7c	Median Pavement Markings Double Arrow Warning Sign Placement
15C19-8a	Moving Pavement Marking Operation Two-Lane Two-Way Roadway
15C19-8b	Moving Pavement Marking Operation Multi-Lane Undivided Roadway
15C19-8c	Moving Pavement Marking Operation Multi-Lane Divided Roadway
15C20-2	Yield Marking
15C21-10	Signing and Marking for Two Lane to Four Lane Divided Transition
15C26-4	End-of-Roadway Signing
15C29-7a	Bicycle Lane Marking
15C29-7b	Pavement Marking for Shared Lane 35mph or Less
15C31-4a	Pavement Marking Exit Ramp and Parallel Exit Ramp Always requires 15C8- a
15C31-4b	Pavement Marking Major Split Freeway to Freeway
15C31-4c	Pavement Marking Entrance Ramp and Parallel Entrance Ramp
15C31-4d	Pavement Marking Lane Drop and Lane Reduction
15C33-4	Stop Line and Crosswalk Pavement Marking
15C34-3	Standard Application for Temporary Raised Pavement Markers, Type II
15C35-5a	Pavement Marking (Intersections)
15C35-5b	Pavement Marking & Signing (Climbing Lane & Passing Lane)
15C35-5c	Pavement Marking & Signing (Climbing Lane & Passing Lane)
15C36-1	Parking Stall Marking (646.8305 Marking Parking Stall Paint & 646.8320 Marking Parking Stall Epoxy)
15D4-1	Traffic Control, Ramp Construction Staging (Typical Sections)
15D5-5	Traffic Control, Single Lane Crossover Entrance with Barrier This requires 15D12 Lane Closure Detail
15D6-5	Traffic Control, Two Lane Two Way Operation To be used when one or more of 15D5, 15D7, 15D8, 15D9, 15D10 or 15D11 are used
15D7-5	Traffic Control, Temporary Exit Ramp Crossover
15D8-8	Traffic Control, Temporary Entrance Ramp Crossover
15D9-6	Traffic Control, Single Lane Crossover Exit This SDD requires 15D11
15D10-5	Traffic Control, Single Lane Crossover Exit with Barrier This SDD requires 15D11
15D11-8	Traffic Control, Single Lane Crossover (Normally requires one or more of these SDD: 15D5, 15D6, 15D9, or 15D10)
15D12-10a	Traffic Control, Lane Closure (Requires 15D11 ONLY IF approaching a crossover)
15D12-10b	Traffic Control Lane Closure Speed Reduction
15D12-10c	Traffic Control Dynamic Late Merge System
15D12-10d	Traffic Control Lane Closure Basic Traffic Queue Warning System
15D12-10e	Traffic Control Lane Closure Traffic Queue Warning System
15D13-2	Temporary Emergency Pullouts
15D14-5	Traffic Control, Two Lane Closure on Freeway or Expressway, Short Term (Less than 24 Hours) (For roadways with signalized at-grade intersections or no grade-separated interchanges, SDD15D22 would normally be more appropriate.
15D15-6 a - e	Traffic Control, Exit and Entrance Ramp Within Lane Closure (Requires use of a separate lane closure detail such as 15D12 or 15D14) (New traffic control detail for use with other lane closure details)
15D16-5	Traffic Control, Exit Ramp Closure
15D20-6a	Traffic Control, Single Lane Closure, Non-Freeway/Expressway (For freeways or expressways, See 15D12).
15D20-6b	Traffic Control, Single Right Lane Closure, Undivided Non-Freeway/Expressway
15D20-6c	Traffic Control, Single Left Lane Closure, Undivided Non-Freeway/Expressway
15D21-7a&b	Traffic Control, Intersection Within Single Right and Left Lane Closure (Requires use of

	a separate lane closure detail such as 15D20, 15D12) (New traffic control detail for use with other lane closure details)
15D22-5	Traffic Control, Two Lane Closure, Non-Freeway/Expressway (For two-lane short-term closures on freeways or expressways, see SDD 15D14)
15D23-7a&b	Traffic Control Intersection Within Two Lane Closure (Always include sheets a & b together) (Requires use of a separate two-lane closure detail such as 15D22) (Same note as 15D21) (New traffic control detail for use with other lane closure details)
15D27-3	Traffic Control, Shoulder Closure on Divided Roadway, Speeds Greater than 40 MPH
15D28-4	Traffic Control Work on Shoulder or Parking Lane, Undivided Roadway
15D29-6	Traffic Control, Vehicle Entrance/Exit or Haul Road
15D30-8a-k	Traffic Control, Pedestrian Accommodation (Always include sheets a, b & c together. Sheet d can be used independently. When including sheets $e - k$, sheets a, b & c must also be included.)
15D31-4	Traffic Control, Temporary Bypass Roadway (Requires separate details to show layout and dimensions of the temporary road.)
15D32-6	Traffic Control, One Lane Road Stop Condition
15D33-8	Traffic Control, One Lane Road with Temporary Signals (Requires separate temporary wiring details.) (Same note as for 15D32)
15D35-3a,b,c	Ramp Gate Hard Wired
15D36-1	Barricade Rack
15D37-3	Traffic Control, 2-Lane Roundabout
15D39-2	Traffic Control, Drop-off Signing
15D40-4a	Traffic Control, Full Lane Shift Non-Freeway/Expressway Multilane Divided 45 MPH and Under
15D40-4b	Traffic Control, Full Lane Shift Multilane Divided 50 MPH and Over
15D40-4c	Traffic Control, Partial Lane Shift Non-Freeway/Expressway or Multilane Divided 45
	MPH and Under
15D40-4d	Traffic Control, Partial Lane Shift Multilane Divided 50 MPH and Over
15D41-2	Traffic Control, Multiple Lane Shift Multilane Divided Road
15D42-1	Traffic Control, Two Lane Full Freeway Closure
15D43-2	Traffic Control, Short Duration Mobile Operations
15D44-2	Traffic Control, Signing on Roadways with Milled Surfaces
15D45-3	Traffic Control, Signing on Roadways with Loose Gravel
15D46-1	Traffic Control One-Way Signing
15D47-2a	Traffic Control Ingress/Egress with Barrier
15D47-2b	Traffic Control Ingress/Egress without Barrier
15D48-1	Traffic Control, Lane Shift in Flagging Operation During Culvert Work
15D49-1	Traffic Control, System Ramp Closure
15D50-2a	Traffic Control, Added Lane Closure without Lane Shift
15D50-2b	Traffic Control, Added Lane Closure with Lane Shift
15D51-1	Traffic Control, Mobile Operations on an Undivided Roadway
16A1-7	Landmark Reference Monuments and Cover (item 621.0100, etc.)