Special Provisions

Table of Contents

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 2030-14-70, 108th Street, City of West Allis, Hank Aaron Trail, B-40-107/108, STH 100, 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, 2018 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 (20170615)

2. Scope of Work.

The work under this contract shall consist of removals, grading, dense graded base, concrete pavement, concrete curb and gutter, concrete sidewalk, concrete barrier, asphaltic surface, HMA pavement, storm sewer, erosion control, permanent signing, traffic signals, traffic control, pavement marking, street lighting, structures, bridges, restoration, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. 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.

Contractor Coordination
Provide an individual to serve as the contractor's sole point of contact for field utility coordination and communication for the duration of the project.

Attend weekly scheduling meetings to discuss the near term schedule activities, address any long-term schedule issues, and discuss any relevant technical issues. Develop a rolling three-week schedule identifying the previous week worked and a two week "look ahead". Provide sufficient detail to include actual and planned activities and all the subcontractors for offsite and construction activities, addressing all activities including ramp and lane closure schedules to be performed and identifying issues requiring engineering action or input.

Roadway Work Restrictions

Definitions

The following definitions apply to this contract for local street work restrictions:

Peak Hours

5:30 AM – 9:00 PM	Monday, Tuesday, Wednesday, Thursday
5:30 AM – 9:00 PM	Friday
11:00 AM – 8:00 PM	Saturday
1:00 PM – 5:00 PM	Sunday

Off-Peak Hours

9:00 PM – 5:30 AM	Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM
9:00 PM – 11:00 AM	Friday PM to Saturday AM
8:00 PM – 1:00 PM	Saturday PM to Sunday PM
5:00 PM – 5:30 AM	Sunday PM to Monday AM

Local Street Work Restrictions

Make at least two lanes available to traffic during the Peak Hours unless approved by the engineer. One lane may be available to traffic during Off-Peak Hours only.

STH 100 may be restricted to one-lane in each direction from 300' south of the Colder's Service Road to the IH 94 EB exit ramp to STH 100 (Ramp SC), as shown in Stage 2A in the plans, for a onetime only period not to exceed 15 consecutive calendar days to facilitate construction of the concrete pavement on STH 100.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing 3 days before performing this work.

General

Provide Milwaukee County Transit System - Coordinator of Street Supervision, Melanie Flynn, (414) 343-1764, with a schedule of any closures that affect any MCTS route and/or stop 14 calendar days prior to closure.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing 3 business days prior to performing such work.

Keep sidewalks open unless otherwise shown on the plans, or to facilitate the removal of structures and erection of girders or as approved by the engineer. Maintain pedestrian access to adjacent properties, businesses, schools, and at bus stops or provide where necessary, as directed by the engineer. Protect pedestrians from falling debris at all times when sidewalks are open.

Provide adequate temporary sidewalk and bridging between the curb and right-of-way line over freshly paved concrete or other obstructions in the sidewalk area, as directed by the engineer.

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants and poles and the paving equipment. No additional compensation will be made.

All Work Restrictions
Excavation material and cleared and grubbed material should be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways as determined by engineer.

Provide the Wisconsin State Patrol, Milwaukee County Highway Maintenance, the City of Milwaukee Police Department, the City of Wauwatosa Police Department, the City of West Allis Police Department, and Milwaukee County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

Interim and Final Completion of Work
Supplement standard spec 108.10 with the following:

The department will not grant time extensions for the following:
-Severe weather as specified in standard spec 108.10.2.2.
-Labor disputes that are not industry wide.
-Delays in material deliveries.
sef-108-015 (20171004)

Final Completion of Work 8/24/2018
Supplement standard spec 108.11 as follows.

If contract time expires prior to completing all contract work, by 12:01 AM on August 25, 2018, the department will assess the contractor $2,065 in liquidated damages per calendar day for each calendar day after 12:01 AM on August 25, 2018, that the project is not completed. An entire calendar day will be charged for any period of time within a calendar day that the project remains uncompleted beyond 12:01 AM, on August 25, 2018.

Migratory Birds
Swallow and other migratory birds' nests have been observed on or under the existing bridge. 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 usually between May 1 and August 30. Either prevent active nests from becoming established, or 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. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure.

Northern Long-eared Bat (*Myotis septentrionalis*)
Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). Evaluation of the Federal Highway Administration's Range-Wide Biological Assessment and Programmatic Informal Consultation process, and/or consultation with the United States Fish and Wildlife Service (USFWS) has determined the project will have "no effect" on northern long-eared bats. If additional construction activities beyond what was originally specified are required to complete the work, such as additional tree clearing, approval from the WisDOT Regional Environmental Coordinator (REC) is required prior to initiating these activities.

The species and all active roosts are protected by the Federal Endangered Species Act. If an individual or active roost is encountered during construction or Clearing operations, stop work and notify the project engineer and the WisDOT REC.

4. Traffic.

General
Perform the work under this contract in a manner that will interfere as little as possible with active traffic on local streets. Do not park or store vehicles, equipment, or materials on City of West Allis streets adjacent to active traffic except at the time of performance of the work. Materials or equipment may be stored within the right-of-way only at locations meeting the approval of the engineer.

Maintain emergency vehicle access to all properties at all times. Access for residents and emergency vehicles is defined as maintaining a clear path of at least 12 feet wide on 3" Base Aggregate Dense 1 ¼-Inch.

Prior to any traffic control being placed, provide the engineer, Wisconsin State Patrol, Milwaukee County Highway Maintenance, the City of Milwaukee Police Department, the City of Wauwatosa Police Department, the City of West Allis Police Department, and Milwaukee County Sheriff's Department with the name and telephone number of a local person responsible for the emergency maintenance of traffic control.

Coordinate all traffic handling with the engineer. Place roadway signing as detailed on the plans and in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.

Employ such flag person, signs, barricades, and drums as may be necessary to safeguard or protect hazards in the work zone, such as exposed manholes or drop-offs for vehicles and direct traffic at locations where construction operations may interfere or restrict the smooth flow of traffic. Make arrangements and be responsible for the prompt replacement of damaged or dislocated traffic control or guidance signs, day or night.

Wisconsin Lane Closure System Advance Notification
Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction <16')	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.
108-057 (20161130)

Schedule of Operations
Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement as approved by the engineer. The department anticipates that the schedule of major traffic shifts and roadway openings and closings for each stage shall be as follows, unless approved by the engineer:

Stage 1 Traffic:
- STH 100 NB and SB reduced to two lanes from the IH 94 EB exit ramp to STH 100 (Ramp SC) to Colder's Service Road.
- Right-turns are restricted on the IH 94 EB exit ramp to STH 100 (Ramp SC) SB.
- Hank Aaron State Trail under STH 100 remains closed as part of Zoo Interchange Reconstruction Project (Contract ID 1060-33-81).

Stage 2 Traffic:
- STH 100 NB and SB reduced to two lanes from the IH 94 EB exit ramp to STH 100 (Ramp SC) to Colder's Service Road.
- Right-turns are restricted on the IH 94 EB exit ramp to STH 100 (Ramp SC) SB.

Stage 2A Traffic:
- STH 100 NB and SB reduced to one lane from the IH 94 EB exit ramp to STH 100 (Ramp SC) to 300' south of the Colder's Service Road for a onetime only period not to exceed 15 consecutive calendar days.
- The IH 94 EB exit ramp to STH 100 (Ramp SC) is reduced to one lane for northbound traffic only.
- The IH 94 WB exit ramp to STH 100 (Ramp SA) SB is closed.

Stage 3 Traffic:
- STH 100 NB and SB reduced to two lanes from the IH 94 EB exit ramp to STH 100 (Ramp SC) to Colder's Service Road.
- Right-turns are restricted on the IH 94 EB exit ramp to STH 100 (Ramp SC) SB.

Stage 4 Traffic:
- STH 100 NB and SB reduced to two lanes from the IH 94 EB exit ramp to STH 100 (Ramp SC) to Colder's Service Road.
- The IH 94 EB exit ramp to STH 100 (Ramp SC) is reduced to one lane for northbound traffic only.
- Open STH 100 NB and SB to three lanes from the IH 94 EB exit ramp to STH 100 (Ramp SC) to Colder's Service Road.
- Open the IH 94 EB exit ramp to STH 100 (Ramp SC) to all lanes.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 100 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 25, 2018 to 6:00 AM Tuesday May 29, 2018 for Memorial Day.
- From noon Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day.

107-005 (20050502)

6. Utilities.

This contract comes under the provisions of Administrative Rule TRANS 220.

Additional information regarding recently relocated utility facilities may be available on permits issued to the utility companies. These permits can be viewed at the Region Office during normal working hours. Contact WisDOT SE Freeways Utility Coordinator Greg Barry at 414-750-7828 for further information.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Some utility work, as described below, is dependent on prior work being performed by the contractor at a specific site. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 14 to 16 calendar days in advance of when the site will be available to the utility. Follow up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Contact utility companies listed in the plans prior to preparing bids to obtain current information on existing utility locations and the status of any new utility relocation work.

Utility companies will be performing utility work and adjustments within the limits and during the life of the project. The contractor shall cooperate and coordinate construction activities with these companies.

There may be discontinued utility facilities within the project limits. If a conflict with a discontinued utility facility is encountered, contact the appropriate utility owner/representative to coordinate construction activities and proper removal and disposal of said facility as necessary.

Utility working days shown herein are as defined in Wisconsin Administrative Code Chapter Trans 220.

Known utilities in the project area are as follows:

AT&T Legacy (aka AT&T Corporation) has an existing underground communications duct package within the project limits beginning beyond the easterly project limits and running northwesterly along a line 18' south and parallel to the Hank Aaron State Trail, crossing STH 100 at Station 565SS+25. It continues northwesterly to beyond the westerly project limits. This duct package consists of six 2-inch ducts. This line will remain in place without adjustment.

Contact Ken Nine (574-842-8830 office / 574-904-6336 cell) of JMC Engineers & Associates, Inc. 7 days in advance to coordinate locations and any excavation near AT&T Corporation facilities.

AT&T Wisconsin has existing underground communications facilities within the project limits in the following locations:

- An existing underground communications line beginning beyond the southerly project limits and running northerly along the westerly curb line of STH 100, to a manhole at Station 562SS+17, 29' LT. From there the line turns westerly and continues beyond the westerly

project limits. AT&T will adjust manhole at Station 565SS+17, 29' LT as shown in plans, during construction.

- A discontinued underground communications line beginning at a manhole at 562SS+17, 29' LT and running northerly along the westerly curb line of STH 100, crossing the Hank Aaron State Trail on the STH 100 structure and continuing to beyond the northerly project limits.

Contact Jay Bulanek (262-896-7669 office / 414-491-2855 cell) of AT&T Wisconsin 7 days in advance to coordinate locations and any excavation near their facilities.

American Transmission Company (ATC) has six overhead 138kV electric transmission lines beginning beyond the westerly project limits and running southeasterly along the south side of eastbound IH 94, crossing STH 100 between Station 566SS+19 and Station 568SS+00, and continuing southeasterly to beyond the easterly project limits. These lines will remain in place without adjustment. Use caution when operating overhead equipment in this area and maintain OSHA safe working clearance to the overhead conductors at all times.

Contact Ivan Keller (262-506-6773) of American Transmission Company 7 days in advance before beginning any work within or around overhead electric transmission lines and to coordinate locations and any excavation near their facilities.

Milwaukee Metropolitan Sewerage District (MMSD) has existing underground sanitary sewer lines within the project limits at the following locations:

- An existing underground sanitary sewer line beginning at a manhole at Station 564SS+00, 46' RT and running easterly to a manhole at Station 564SS+01, 71' RT. From there it turns and runs northerly to a manhole at Station 566SS+56, 70' RT. It then turns easterly to a manhole at Station 566SS+67, 133' RT. It then turns northerly and continues beyond the northerly project limits. This sewer line will remain in place without adjustment. Reconstruct manhole at Station 564SS+01, 71'RT as shown in the plans. MMSD will adjust the manholes at Station 564SS+00, 46' RT and Station 566SS+56, 70' RT during construction. Allow 2 days for MMSD to adjust manholes during construction.
- An existing underground sanitary sewer begins at a manhole at Station 564SS+00, 46' RT running northerly to a manhole at Station 564SS+12, 46' RT. From there it turns northeasterly and connects to a sewer at Station 564SS+30, 56' RT. MMSD will adjust the manhole at Station 564SS+12, 46' RT during construction. Allow 1 day for MMSD to adjust manhole during construction. This sewer line will remain in place without adjustment.
- An existing underground sanitary sewer line begins beyond the westerly project limits and runs easterly, perpendicular to STH 100, crossing at Station 564SS+31, to a manhole at Station 564SS+31, 24' RT. From there it continues in an easterly direction beyond the easterly project limits. MMSD will adjust the manhole at Station 564SS+31, 24' RT during construction. This sewer line will remain in place without adjustment.

Milwaukee Metropolitan Sewerage District also has a discontinued sanitary sewer line within the project limits beginning at a manhole at Station 566SS+56, 70' RT and running northerly along the easterly curb of STH 100 to beyond the northerly project limits.

Contact Larry Anderson (414-225-2241) of the Milwaukee Metropolitan Sewerage District 7 days in advance to obtain lifting rings for manhole reconstruction and to coordinate locations and any excavation near their facilities. Contact Bob Rebitski (414-225-2214) of the Milwaukee Metropolitan Sewerage District 7 prior to any paving operations to coordinate manhole adjustments.

AT&T Local Network (aka Teleport Communications of America (TCA)) has an existing underground communications line within the project limits beginning beyond the easterly project

limits and running northwesterly along a line 18' south and parallel to the Hank Aaron State Trail, crossing STH 100 at Station 565SS+25. It continues northwesterly to beyond the westerly project limits. This line will remain in place without adjustment.

Contact Jennifer Navarro (414-459-3564) of Northwind Technical Services 7 days in advance to coordinate locations and any excavation near TCA facilities.

WE Energies – Electric has existing overhead and underground electric facilities within the project limits in the following locations:

- An existing overhead electric line beginning beyond the southerly project limits and running northerly along a line 40' easterly of and parallel to the easterly curb to a pole at Station 562SS+80, 101' RT. From there it continues to a pole at 563SS+93, 110' RT. The electric line continues underground, northeasterly, beyond the easterly project limits. This line will remain in place without adjustment.
- Four existing underground electric conduit packages beginning beyond the westerly project limits and running easterly, perpendicular to STH 100, crossing STH 100 between Station 563SS+54 and Station 563SS+82. The electric conduit packages continue to Station 563SS+53, 123' RT and Station 563SS+84, 117' RT. From there the electric conduit packages turn northeasterly and continue beyond the easterly project limits. These lines will remain in place without adjustment.

Contact Nicholas Welch (414-944-5765) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Gas has underground gas facilities within the project limits. A 24-inch high pressure underground gas line beginning beyond the southerly project limits running northerly along a line 50' easterly of and parallel to the existing easterly curb of STH 100, to Station 564SS+00, 115' RT and continuing northeasterly to Station 564SS+82, 125' RT. From there it continues northerly to beyond the northerly project limits. This line will remain in place without adjustment.

We Energies – Gas also has discontinued underground gas facilities beginning beyond the southerly project limit running northerly, along the existing easterly curb of STH 100, to Station 563SS+80, 54' RT turning northeasterly to Station 564+33, 79' RT. From there it turns northerly to Station 566SS+15, 78' RT. It turns northwesterly to Station 566SS+70, 53' RT and continues northerly beyond the northerly project limits. The discontinued gas main is encased from Station 564SS+61 to Station 565SS+64, under the Hank Aaron State Trail.

Additionally, We Energies will remove discontinued gas main in conflict with proposed construction in locations where the gas main coating may contain hazardous material. The removal of such discontinued gas main will occur during construction. Allow We Energies 5 days for removal of impacted portions of gas main. Contact Nick Ernster (414-944-5574) of We Energies 10 days prior to any activity that will expose the existing gas main to coordinate removal activities.

Contact Nick Ernster (414-944-5574) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

West Allis – Lighting has existing underground lighting facilities beginning beyond the southerly project limits and running northerly, along the westerly curb of STH 100, to a light pole at Station 563SS+02, 40' LT. The line continues to Station 563SS+20, 33' LT where it turns easterly to Station 563SS+22, 56' RT. From there it continues southerly, along the easterly curb of STH 100, to beyond the southerly project limits. The City of West Allis will remove the luminaires, poles, and bases at Station 563SS+02, 40' LT and at Station 561SS+92, 62' RT during construction, and will leave the remainder of the buried electric system intact. Two new light poles are to be installed as shown in plans.

Contact Peter Daniels (414-302-8374) of the City of West Allis, 7 days in advance to coordinate removal of light poles and any excavation near their facilities.

West Allis – Sewer has an underground sanitary sewer beginning beyond the southerly project limits and running northerly, 10' westerly of and parallel to the easterly curb of STH 100, to a manhole at Station 562SS+75, 46' RT. It continues northerly to a Milwaukee Metropolitan Sewerage District manhole at Station 564SS+00, 46' RT. These lines will remain in place without adjustment. The City of West Allis will adjust the manhole at Station 662SS+75, 46' RT, as shown in the plans, during construction. Allow 1 day for West Allis to adjust manhole during construction.

Contact Peter Daniels (414-302-8374) of the City of West Allis 7 days in advance to coordinate manhole adjustment and any excavation near their facilities.

Wisconsin Independent Network (WIN) has an existing underground communications line in the WisDOT – Communications conduit beginning beyond the southerly project limits runs northerly, along the easterly curb of STH 100, to a vault at Station 564SS+17, 60' LT. From there it continues north in a conduit in the east parapet of the STH 100 bridge over the Hank Aaron State Trail to a vault at Station 566SS+14, 60' LT. From there it runs northeasterly to a vault at Station 567SS+15, 99' RT and then continues northerly to beyond the northerly project limits. WIN will relocate this line prior to construction.

Contact Jim Birkenheier (715-832-6041 office / 715-838-4007 cell) of Wisconsin Independent Network 7 days in advance to coordinate locations and any excavation near their facilities.

WisDOT – Lighting has existing overhead and underground lighting facilities throughout the project limits in the following locations:

- An existing underground line beginning beyond the northerly project limits runs southerly to a pullbox at Station 567SS+07, 62' LT. From there it runs southeasterly to a pullbox at Station 566SS+59, 48' LT. It turns southerly and continues to a light pole at Station 566SS+09, 40' LT. It continues southerly and terminates at a light pole at Station 564SS+40, 43' LT.
- An existing underground line beginning beyond the northerly project limits runs southerly to a pullbox at Station 567SS+38, 91' RT. From there it runs southwesterly to a pullbox at Station 566SS+10, 65' RT. It turns southerly and continues to a light pole at Station 565SS+41, 56' RT. It continues southerly and terminates at a light pole at Station 563SS+30, 64' RT.

Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.

Contact Eric Perea (262-574-5422 office / 414-750-0935 cell) of WisDOT 7 days in advance to coordinate construction, locations and any excavation near their facilities.

WisDOT – Signals has existing overhead and underground signal facilities within the project limits at the intersection of the southbound exit ramp from IH 94 and STH 100, from Station 566SS+53 to beyond the northerly project limits. Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.

Contact WisDOT Traffic Signal Operations (414-750-2605) 7 days in advance to coordinate construction, locations and any excavation near their facilities.

WisDOT – Communications has existing underground traffic management and communications facilities throughout the project limits

- An existing underground line beginning beyond the southerly project limits runs northerly, along the easterly curb of STH 100, to a vault at Station 564SS+17, 60' LT. From there it continues north in a conduit in the east parapet of the STH 100 bridge over the Hank Aaron State Trail to a vault at Station 566SS+14, 60' LT. From there it runs northeasterly to a vault

at Station 567SS+15, 99’ RT and then continues northerly to beyond the northerly project limits.

- An existing underground line beginning at the vault at Station 566SS+14, 60’ LT, runs northwesterly to a vault at Station 566SS+65, 50’ LT. It continues northerly to a vault at Station 568SS+00, 66’ LT. It continues northerly to beyond the northerly project limits.

Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.

Contact Jeff Madson (414-225-3723) of WisDOT 7 days in advance to coordinate construction, locations and any excavation near their facilities.

7. Other Contracts.

Coordinate your work in accordance to standard spec 105.5.

It is expected that routine maintenance by the city and county personnel may be required at certain times concurrently with the work being done under this contract.

The following contracts are anticipated to be under construction within the time period of this contract, unless otherwise indicated:

Contract ID 1060-33-81, Zoo Interchange Phase 2 reconstruction. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-33-82, IH 94 Auxiliary Lanes reconstruction from Moorland Road to Underwood Parkway. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-35-81, Zoo IC Landscaping. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-33-84, Zoo IC US45 WIS100 to Burleigh Street reconstruction. The WisDOT contact is Chris Zacharias at (262) 548-6716; christopher.zacharias@dot.wi.gov.

Contract ID 1060-33-96, Zoo IC – Advanced Signing Projects; various locations. The WisDOT contact is Christopher Hager at (414) 750-1487; christopher.hager@dot.wi.gov.

8. Hauling Restrictions.

Replace standard spec 107.2 with the following:

(1) Present to the department, five business days before proposed hauling, a proposed haul route plan detailing haul routes that are not part of the state trunk highway system. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work in the haul route submittal.

(2) The department will review the submittal and either approve or provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. If approved, the department will subsequently survey the existing condition of that haul route to establish a baseline for assessing damage that the contractor's hauling operations might cause.

(3) At all times, conduct operations in a manner that will cause a minimum of disruption to traffic on existing roadways.

sef-107-015 (20170310)

9. Erosion Control.

Supplement standard spec 107.20 with the following:

Erosion control best management practices (BMP's) the plans show are at suggested locations. The actual locations shall be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP shall supplement information the plans show and not reproduce it. The ECIP shall identify how to implement the project's erosion control plan. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of top soil to minimize the exposure to possible erosion.

Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison, Kristina Betzold, (414) 263-8517, Kristina.Betzold@wisconsin.gov. Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.

Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Install perimeter silt fence protection around stockpiles within a timeframe acceptable to the engineer. If stockpiled materials will be left for more than 14 days, install temporary seed and mulch or other temporary erosion control measures the engineer orders.

Re-apply topsoil on graded areas, as designated by the engineer, within a timeframe acceptable to the engineer after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch.

Do not allow excavation for; structures, utilities, grading, maintaining drainage that requires dewatering(mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Before each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, conforming to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection.

Dewatering is incidental.

sef-107-010 (20171004)

10. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 8:00 PM until the following 7:00 AM, unless prior written approval is obtained from the engineer.
107-001 (20060512)

11. Notice to Contractor – Airport Operating Restrictions.

Fill out the FAA Notice Criteria tool for all permanent structure (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

https://oeaaa.faa.gov/oeaaa/external/portal.jsp

If required by the Notice Criteria tool, and for all crane or construction equipment higher than 200 feet above the ground, submit completed form 7460-1 (Notice of Proposed Construction or Alteration) to The Federal Aviation Administration (FAA) at least 45 days before starting construction.

Contact Levi Eastlick (608-267-5018), WisBOA airspace/tall structure manager for assistance submitting forms.

sef-107-020 (20170310)

12. Traffic Meetings and Traffic Control Scheduling.

Every Wednesday by 9:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer between 10:00 - 11:00 AM on Wednesdays at the Zoo Interchange project office on 2424 S. 102nd Street; West Allis to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 10:00 AM meeting.

Every Wednesday at 2:00 PM, or as scheduled by the engineer, attend a weekly traffic meeting. The meeting will bring local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the meeting attendees, edit, delete and add information to the detailed 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the 2-week look-ahead as required and obtain engineer approval.

sef-643-040 (20150319)

13. Material and Equipment Staging.

Submit a map showing all proposed material stockpile or equipment storage locations to the Engineer 14 days before either preconstruction or proposed use, whichever comes first. Identify the specific purposes for the location. Obtain written permits from the property owner, and submit two copies to the Engineer before use. Do not stockpile or store materials or equipment on wetlands.

sef-999-020 (20170310)

14. Available Documents.

The department will make its information available to bidding contractors. The list of documents that are available for contractors' information includes:

- Design Study Report

- Environmental Document
- As-Built Drawings
- Preconstruction survey
- Traffic Management Plan

These documents are available from Christopher Hager at 141 NW Barstow Street, Waukesha, WI 53187 (414) 750-1487.

Reproduction costs will be applied to all copies requested.

sef-102-005 (20170310)

15. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

(2) If the contractor discovers the differing condition, provide a written notice, as specified in 104.3.3, of the specific differing condition before further disturbing the site and before further performing the affected work.

Replace standard specs 104.3.2 and 104.3.3 with the following:

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

(1) If required by 104.2, or if the contractor believes that the department's action, the department's lack of action, or some other situation results in or necessitates a contract revision, promptly provide a written notice to the engineer. At a minimum, provide the following:

1. A written description of the nature of the issue.
2. The time and date of discovering the problem or issue.
3. If appropriate, the location of the issue.

(2) Provide the additional information specified in 104.3.5 as early as possible to assist the engineer in the timely resolution of an identified issue. The engineer will not require, in subsequent submissions, duplication of information already provided.

sef-104-005 (20141211)

16. MMSD Acceptance of Sanitary Manhole Reconstruction.

Both the Department and Milwaukee Metropolitan Sewerage District (MMSD) personnel will inspect the reconstruction of the MMSD sanitary manhole under this contract.

The contractor shall perform construction staking and testing of the sanitary manhole.

Final acceptance of the sanitary manhole reconstruction will be by the Milwaukee Metropolitan Sewerage District.

17. Referenced Construction Specifications.

Construct the work enumerated below conforming to the Standard Specifications for Sewer and Water Construction in Wisconsin (SSSW). If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

stp-105-002 (20130615)

18. Contractor Document Submittals.

This special provision describes minimum requirements for submitting project documents to the department. This special provision does not apply to shop drawing submittals.

Provide one electronic copy of all documents requiring department review, acceptance, or approval. Attach a completed engineer-provided transmittal sheet to each email submittal. The department will reject submittals with incomplete transmittal sheets and require re-submittal.

The department will return one reviewed, accepted, or approved original to the contractor. Additional return originals can be requested. Submit an additional original for each additional return original requested.

Submit electronic copies in PDF format to the engineer-designated folder within the department's SharePoint site. Send alerts with a link to the document via email to accounts the engineer determines. If possible, create PDFs from original documents in their native format (e.g. Word, Excel, AutoCAD, etc.). Scan other documents to PDF format with a minimum resolution of 600 dpi.

All costs for contractor document submittals are incidental to the contract.

sef-105-010 (20150619)

19. Information to Bidders, Use of Recovered Material.

The department encourages the use of waste materials and recovered industrial byproducts as material substitutions (106.2.1), provided they meet standard specification gradation requirements, conform to NR 538 requirements, and follow standard engineering practice for their intended use.

sef-106-005 (20141211)

20. Dust Control Implementation Plan.

A Description

This special provision describes developing, updating, and implementing a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

B (Vacant)

C Construction

C.1 General

Control dust on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Control dust at all times during the contract.

Submit a DCIP to the engineer for review at least 14 calendar days before the preconstruction conference. Coordinate with the department, if requested, to resolve DCIP related issues before the preconstruction conference. The department will either approve the DCIP or request revisions. Do not initiate land-disturbing activities without the department's approval of the DCIP.

C.2 DCIP Contents

Develop a DCIP tailored to the specific needs of the project. Consider potential impacts to businesses and residences adjacent to the job site. Describe in detail all land disturbing, dust generating activities. Identify strategies to prevent, mitigate, and collect excess dust. Establish clear lines of communication with the engineer to ensure that all dust control issues can be dealt with promptly.

Include all of the following:

1. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Provide:
   - Name, firm, address, and working-hours phone number.
   - Non-working-hours phone number.
   - Email address.
2. A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.
3. A matrix, or plan, for each anticipated land disturbing, dust generating activity, showing the following:
   - Preventive measures that shall be employed.
   - The applicable contact person.
   - The contractor's timetable and surveillance measures used to determine when remediation is required.
   - The specific dust control and remediation measures that shall be employed. Identify the specific contract bid items that shall be used for payment. Indicate costs and practices that are incidental to the contract.
   - Both maintenance and cleanup schedules and procedures.
   - Excess and waste materials disposal strategy.
4. A description of monitoring and resolving off-site impacts.

C.3 Updating the DCIP

Update the DCIP during the contract or as the engineer directs. Obtain the engineer's approval for all DCIP alterations. Also obtain the engineer's approval for routine DCIP adjustments for weather, job conditions, or emergencies that will have an impact on payment under the bid items listed in the approved DCIP.

C.4 Dust Control Deficiencies

Coordinate with engineer to determine deadlines for resolving dust control deficiencies. Deficiencies include actions or lack of actions resulting in excessive dust, non-compliance with the contractor's DCIP or associated special provisions, and not properly maintaining equipment.

D Measurement

The department will measure the various bid items associated with dust control as specified in the applicable measurement subsections of either the standard specs or other contract special provisions. The department will not measure work performed under a DCIP alteration unless the engineer specifically approves that alteration.

Measurement under the DCIP includes the contract bid items listed in this special provision:

623.0200 Dust Control Surface Treatment

624.0100 Water

628.7560 Tracking Pads

SPV.0075.0001 Pavement Cleanup Project 2030-14-70

The department will measure work completed under other existing contract bid items if approved as a part of the DCIP. The department will consider new bid items to the contract if proposed under the DCIP. The department will not measure work required under the DCIP that is not included in contract bid items.

E Payment

All costs associated with the development and updating of the DCIP are incidental to the contract. The department will pay separately for the work required to implement the actions approved in the DCIP under the contract bid items approved as a part of the DCIP. All other costs associated with work approved under the DCIP are incidental to the contract.

sef-107-005 (20170323)

21. Maintaining Drainage.

Maintain drainage at and through worksite during construction conforming to standard specs 107.22, 204, 205 and 520.

Use existing storm sewers, existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Pumps may be required to drain the surface, pipe, and structure discharges during construction. Costs for furnishing, operating, and maintaining the pumps is considered incidental to the project.

Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations

If dewatering bypass operations are required from one pipe structure to another downstream pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce erosion from the discharge velocity that would cause release of sediment downstream.

Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to article Erosion Control in these special provisions for additional requirements.

sef-107-016 (20170310)

22. Notice to Contractor – OCIP Exclusions.

The Owner Controlled Insurance Program (OCIP) insurance coverage excludes environmental/abatement work, including hazardous materials/chemicals, lead and other materials considered hazardous – see Article – Owner Controlled Insurance Program for additional information. Environmental/abatement work must be performed by a qualified contractor and the work will not be covered under OCIP. The contractor performing Environmental/abatement work may potentially be enrolled in the OCIP if also performing other work not excluded from the OCIP umbrella. The qualified subcontractor must carry Construction Pollution Liability insurance with limits of at least $1,000,000 per Occurrence and $2,000,000 Aggregate.

Report only payroll from non-environmental work under the OCIP. Do not report payroll generated from environmental/abatement work.

Direct questions regarding all aspects of OCIP to Chris Luttrell (608-381-2340) at chris.luttrell@dot.wi.gov.

sef-107-025 (20170406)

23. Owner Controlled Insurance Program.

Standard spec 107.26, “Standard Insurance Requirements” is deleted in its entirety and the following standard spec 107.26 is substituted thereof:

107.26 Standard Insurance Requirements

107.26(1)(a) Owner Controlled Insurance Program

1. Overview. The State of Wisconsin, Department of Transportation (“the WisDOT”) has arranged with Aon Risk Solutions, (the “OCIP administrator”) for this Project to be insured under its Owner Controlled Insurance Program (“OCIP”). The OCIP is more fully described in the Zoo Interchange manual for the Owner Controlled Insurance Program (the “Insurance Manual”) and the Safety and Health Plan Manual that are incorporated in this Special Provision and the Contract by this reference. Parties performing labor or services at the Project Site (as defined by the OCIP Policies) are eligible to enroll in the OCIP unless the party is an excluded party (as defined below). The OCIP will provide to enrolled parties(as defined below) workers’ compensation and employer’s liability insurance, commercial general liability insurance, Builders Risk and Excess Liability insurance as summarily described below in connection with the performance of the Work (“OCIP coverage’s”).

2. Enrolled Parties and Their Insurance Obligations. OCIP coverage applies only to Enrolled Parties. Enrolled Parties include the WisDOT and its employees, non-excluded Contractors and Subcontractors of all tiers who enroll in the OCIP, all employees of Enrolled Contractor’s and Subcontractor’s who perform Work at the Project Site, and such other persons or entities that the WisDOT, in its sole discretion, may designate (each such party who is insured under the OCIP is collectively referred to as an “Enrolled Party”).

Enrolled Parties shall obtain and maintain, and shall require each of its Subcontractors to obtain and maintain, the insurance coverage specified in 107.26(1)(a) 8 below.

3. Excluded Parties and Their Insurance Obligations. OCIP coverage’s do not apply to the following “Excluded Parties”:

a. Hazardous materials remediation, removal and/or transport companies;

b. Vendors *, suppliers, fabricators, material dealers, truckers**, haulers, drivers and others who merely transport, pickup, deliver, or carry materials, personnel, parts or equipment or any other items or persons to or from the Project;

* WisDOT is requiring all vendors who perform maintenance on an enrolled contractor’s equipment to be enrolled in the OCIP. Please see “WisDOT OCIP Enrollment Guidance Relating to Service Vendors” to determine whether they will be enrolled per project id number or on a Miscellaneous blanket basis.

** Truckers that come on site must remain in the cab of the vehicle.

Refer to the “Enrollment Matrix” which clearly outlines the requirements contingent upon the category that the entity falls under, such as: Contractor; Subcontractor; Consultant; Visitor; etc.

c. Sanitary disposal facility providers, if the only function is to drop off the units and pick them up later, they are material suppliers and are excluded. If the company also services/cleans the units on site, that is no longer being a material supplier. (Refer to “Enrollment Matrix”, Vendors Providing Maintenance On Site).

d. Contractors and Subcontractors of any tier that do not perform any actual labor on the Project site;

e. Any party or entity not specifically identified in this special provision or excluded by the WisDOT as permitted by law, even if otherwise eligible.

f. If you are not employed by an Enrolled Party, but performing services of an Excluded Party, you are not covered by the OCIP.

Excluded Parties and parties not enrolled in the OCIP shall obtain and maintain, and shall require each of its excluded Subcontractors to obtain and maintain, the insurance coverage specified in standard spec 107.26(1)(a) 8 below and in the Insurance Manual. Excluded Parties shall comply with all of the safety requirements pursuant to 107.26(1)(a) 16.

4. OCIP Insurance Policies Establish OCIP coverage's. The OCIP coverage's and exclusions summarized in this special provision and the other contract documents are set forth in full in their respective insurance policy forms. The summary descriptions of the OCIP coverage's in this special provision or the Insurance Manual are not intended to be complete or to alter or amend any provision of the actual OCIP coverage's. In the event any provision of this special provision, the Insurance Manual, or the contract documents, conflicts with the OCIP insurance policies, the provisions of the actual OCIP insurance policies shall govern.

5. Summary of OCIP Coverage's. OCIP coverage's will apply only to those operations of each Enrolled Party performed at the Project Site (as defined in the OCIP insurance Policies) in connection with the Work and only to Enrolled Parties that are eligible for the OCIP.

The OCIP coverage's are primary insurance for all Enrolled Parties for occurrences during the policy period at the Project Site (as defined in the OCIP Policies). The OCIP will provide at least the following insurance to Enrolled Parties:

Summary of OCIP Coverages

This is a brief description of OCIP Insurance Coverage. Enrolled Parties should refer to the actual policies for details concerning coverage, exclusions and limitations.

a. Workers' Compensation Insurance -Statutory Limit including Jones Act and USL&H coverage, as applicable.

b. Employer's Liability Insurance $1,000,000 Bodily Injury by Accident, each accident $1,000,000 Bodily Injury by Disease, each employee $1,000,000 Bodily Injury by Disease, policy limits

c. Commercial General Liability (ISO Occurrence Form – Limits Shared By All Insureds) $2,000,000 Each Occurrence Limit (Annual Limit) $2,000,000 Personal/Advertising Injury Aggregate $4,000,000 General Aggregate Limit for all Enrolled Parties (Annual Limit)

$4,000,000 Products and Completed Operations Aggregate for all Enrolled Parties (Single Limit Applies to Entire Products and Completed Operations Extension)

10 yr. Products and Completed Operations Extension

d. The OCIP Commercial General Liability policy will not provide coverage for any claim that could be covered under a property policy or Builder's Risk policy.

e. Excess Liability insurance (over Employer's Liability and General Liability – Limits Shared by All Insureds)

$100,000,000 Each Occurrence Limit

$100,000,000 Aggregate (Annual Limit)

$100,000,000 Products and Completed Operations Aggregate Limit (Single Limit Applies to Entire Products and Completed Operations Extension).

f. Builder's Risk Insurance Coverage:

This is a brief description of Builder's Risk Insurance Coverage. Contractor should refer to the actual policies for details concerning coverage, exclusions and limitations.

The Builder's Risk insurance covers insures property, including materials, supplies, machinery, fixtures and equipment which will become a permanent part of the Work (excluding road work at grade level) in the course of construction.

The Builder's Risk coverage insures WisDOT and Enrolled Parties.

Builders Risk:

Limit

Each Occurrence Limit
$100,000,000

Builder's Risk Obligation:

- Contractor or Subcontractor shall pay to the WisDOT's designee within five (5) days
- Written notice a maximum of up to twenty-five thousand dollars ($25,000.00) for each loss payable under the Builder's Risk Policy attributable to Contractor's Work, acts or omissions, or the Work, acts or omissions of any of Contractor's Subcontractors, or any other entity or party for whom Contractor may be responsible ("builder's risk obligation").

6. The WisDOT's Insurance Obligations.

a. The WisDOT will pay the costs of premiums for the OCIP coverage's and WisDOT will receive or pay, as the case may be, all adjustments to such costs, whether by way of dividends, retroactive adjustments, return premiums, other moneys due, audits or otherwise.

b. The WisDOT assumes no obligation to provide insurance other than that specified in this special provision and the OCIP insurance policies.

c. Except as provided by applicable law, the WisDOT's furnishing of OCIP coverage's will in no way relieve or limit, or be construed to relieve or limit, Contractor or any of its Subcontractors of

any responsibility, liability, or obligation imposed by the contract documents, the OCIP insurance policies, or by law, including without limitation any indemnification obligations which Contractor or any of its Subcontractors has to the WisDOT there under. The WisDOT reserves the right at its option, to furnish other insurance coverage of various types and limits provided that such coverage is not less than that specified in the contract documents.

7. Contractor's OCIP Obligations. Contractor shall:

a. Assign to WisDOT the right to receive all such adjustments, and shall require that each of its Subcontractors of every tier assigns to WisDOT the right to receive all such adjustments.

b. Incorporate the terms of this special provision in all subcontract agreements.

c. Enroll and maintain enrollment in the OCIP, and shall ensure that each non-Excluded subcontractor, enrolls and maintains enrollment in the OCIP. Enrollment shall take place within five days of a receipt of a Notice to Proceed, and prior to commencement of work. Comply with all of the administrative, safety, insurance, and other requirements outlined in this special provision, the Insurance Manual, the OCIP insurance policies, the Safety and Health Plan Manual, or elsewhere in the contract documents.

d. Provide each of its Subcontractors with a copy of the Insurance Manual and ensure Subcontractor compliance with the provisions of the OCIP insurance policies, the Insurance Manual, this special provision, and the contract documents. The failure of (a) the WisDOT to include the Insurance Manual in the bid documents or (b) Contractor to provide each of its eligible Subcontractors with a copy of same shall not relieve Contractor or any of its Subcontractors from any of the obligations contained therein.

e. Acknowledge, and require all of its Subcontractors to acknowledge in writing, that the WisDOT and the OCIP administrator are not agents, partners or guarantors of the insurance companies providing coverage under the OCIP (each such insurer, an "OCIP insurer") and that the WisDOT is not responsible for any claims or disputes between or among Contractor, its Subcontractors, and any OCIP insurer(s). Any type of insurance coverage or limits of liability in addition to the OCIP coverage's that Contractor or any Subcontractor requires for its or their own protection, or that is required by applicable laws or regulations, shall be Contractor's or its Subcontractor's sole responsibility and expense and shall not be billed to the WisDOT.

f. Cooperate fully with the OCIP administrator and the OCIP insurers, as applicable, in its or their administration of the OCIP.

g. Provide, within five (5) business days of the WisDOT's or the OCIP administrator's request, all documents or information as requested of Contractor or its Subcontractors. Such information may include but not be limited to, payroll records, certified copies of insurance coverage's, declaration pages of coverage's, certificates of insurance, underwriting data, prior loss history information, insurance audits, safety records or history, OSHA citations, or such other data or information as the WisDOT, the OCIP administrator, or OCIP insurers may request in the administration of the OCIP, or as required by the Insurance Manual.

h. Pay to the WisDOT's designee within five (5) days of written notification, a sum of up to **$10,000** of each claim, including court costs, attorneys fees and costs of defense for property damage to the extent losses are insured under the OCIP Commercial General Liability policy for those losses that are attributable to Contractor's Work, acts or omissions, or the Work, acts or omissions of any of its Subcontractors, or any other entity or party for whom Contractor may be responsible ("contractor General Liability obligation"). The contractor General Liability obligation will not be insured by the OCIP Coverage's.

8. Additional Insurance Required From Enrolled Parties and Excluded Parties. Contractor shall obtain and maintain, and shall require each of its Subcontractors of every tier to obtain and maintain, the insurance coverage specified in this Section in a form and from insurance companies reasonably acceptable to the WisDOT. The insurance limits may be provided through a combination of primary and excess policies, including the umbrella form of policy. The insurance required by this Section shall conform to the WisDOT's requirements outlined in the Insurance Manual and be written by companies authorized to do business in the state of Wisconsin with an **AM Best rating of A-or better**. Contractor shall provide certificates of insurance coverage to the WisDOT as required below and by the Insurance Manual.

As to Enrolled Parties, the Workers' Compensation, Employer's Liability, and Commercial General Liability insurance required by this section shall only be for operations away from the Project Site (as defined by OCIP Policies). The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.

TYPE OF INSURANCE MINIMUM LIMITS REQUIRED

1. Commercial General Liability insurance shall be endorsed to include Blanket Contractual Liability coverage.

   a. $2,000,000 Combined Single Limits per occurrence with an annual aggregate limit of not less than $4,000,000.

   b. The OCIP Coverage's shall exclude blasting or explosion operations. If blasting or explosion operations are used in connection with the Work, Commercial General Liability insurance shall not contain an exclusion for blasting or explosion and shall be provided in limits established by the WisDOT at the time such blasting or explosion methods are elected. Such coverage shall apply to operations whether the operations occur on the Project site or away from the Project site.

   c. Wisconsin Department of Transportation, their respective officers, agents and employees, and any additional entities as the WisDOT may request as additional insureds must be named as an Additional Insured which shall include: i) liability arising out of the Work performed by the named insured; ii) liability arising out of the supervision of the Work performed by or operations of the named insured; and iii) liability of the acts or omissions of the Additional Insureds relating to Work performed by the named insured for the Project, except for sole negligence of the Additional Insureds iv) will state that coverage is afforded on a primary and non-contributory basis.

   d. Ongoing Construction Operation(s) in effect at all times while work is being performed by Contractor;

   e. Subcontractors and Independent Contractors (if any);

   f. Products and Completed Operations, including coverage applicable to additional insureds (as required by this agreement) with Completed Operations coverage to remain in force, whether by endorsement or renewal of coverage, including the Contractor, any party required to be indemnified by this Contract and any other party required by this Contract to be named as an additional insured, for at least two (2) years from the date of final completion of the Project and WisDOT's acceptance of the work; and

   g. Explosion, collapse, and underground hazards.

   h. Contractual Liability (insured contract) coverage sufficient to meet the requirements of this Contract (including defense costs and attorney's fees assumed under contract);

i. Personal and Advertising Injury Liability coverage (with the standard contractual and employee exclusions deleted);

j. Notice and Knowledge of Occurrence conditions limited to the knowledge of relevant corporate officers or risk managers with an Unintentional Errors and Omissions provision (providing that the insurer may not deny coverage unless it can show that it has been prejudiced by a failure of the insured to comply with a condition of the policy); and

k. CG 22 79 07 98 (or equivalent) is the only acceptable Professional Liability Exclusion.

l. Operations performed within 50' of railroad

m. Contractors must provide their own insurance for owned, leased, rented and borrowed equipment, whether such equipment is located at a Project Site or "in transit". Contractors are solely responsible for any loss or damage to their personal property including, without limitation, property or materials created or provided under the Contract until installed at the Project Site, Contractor tools and equipment, scaffolding and temporary structures.

2. Workers' Compensation and Employer's Liability insurance.

a. Workers' Compensation Limits: Statutory Limits

b. Employer's Liability limits:

$1,000,000 Bodily Injury by Accident, each accident $1,000,000 Bodily Injury by Disease, each employee $1,000,000 Bodily Injury by Disease, policy limits

Terms and conditions shall include:

- USL&H – where applicable.
- Jones Act – where applicable.
- All states endorsement -where applicable.

3. Commercial Automobile Liability insurance as specified by Insurance Services Office (ISO), form CA 00 01, symbol 1 (any auto) with the following limits and endorsements:

a. No Trucking or Hauling: $1,000,000 Each Accident

b. Trucking or Hauling (Non Hazardous Materials): $2,000,000 Each Accident

c. Trucking or Hauling Hazardous Materials: $5,000,000 Each Accident with an MCS 90 Endorsement and ISO Endorsement CA 99 48.

4. For any work over water, whether deemed navigable or otherwise, Contractors Pollution Liability insurance with $2,000,000 per occurrence and $2,000,000 aggregate policy limits.

5. Aviation and/or Watercraft Liability insurance, as appropriate, including hull and protection and indemnity for watercraft, or other insurance, in form and with limits of liability and from an insuring entity reasonably satisfactory to the WisDOT.

Contractor's failure to procure or maintain the insurance required by this Section and to assure all its Subcontractors of every tier maintain the required insurance during the entire term of the contract shall constitute a material breach of this contract under which the WisDOT may immediately suspend or terminate this contract or, at its discretion, procure or renew such insurance to protect the WisDOT's interests and pay any and all premiums in connection therewith, and withhold or recover all monies so paid from the Contractor.

Contractor shall provide the WisDOT with certificates of insurance as evidence that required coverage's for insurance detailed in this section are in force. The bidder shall provide certificates of insurance in their pre-qualification statement as specified in 102.1.

Contractor shall notify the WisDOT at least 60 calendar days before a cancellation or material change in coverage and only obtain coverage from insurance companies licensed to do business in the state that have an AM Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The WisDOT will make no additional or special payment for providing insurance.

The above insurance requirements shall apply with equal force whether the Contractor or a Subcontractor, or anyone directly or indirectly employed by either, performs the work under the Project.

9. Additional Insureds:

All insurance required by this agreement (excluding only workers compensation insurance) shall name WisDOT, all parties required to be indemnified by this Contract and all other parties as reasonably requested by the WisDOT, as additional insureds. All policies (including primary, excess and/or umbrella) must provide that coverage shall be primary and non-contributory to any insurance maintained by the Contractor or the additional insured, all of which shall be stated on the Certificate of Insurance provided by the Contractor. The Additional Insured Endorsement shall be on Form CG 20 10 11/85, or CG 20 33 10/01 plus CG 20 37 10/01, or equivalent, and shall include ongoing and completed operations coverage, which shall not contain any restrictions**.**

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR APPLICABLE LAW) LIMITS THE ADDITIONAL INSURED COVERAGE THAT WISDOT MAY REQUIRE FROM THE CONTRACTOR, THEN THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ADDITIONAL INSURED COVERAGE TO THE FULLEST EXTENT OF COVERAGE AND LIMITS ALLOWED BY APPLICABLE LAW AND THIS CONTRACT SHALL BE READ TO CONFORM TO SUCH LAW.

10. Contractor Representations and Warranties to the WisDOT. Contractor represents and warrants to the WisDOT or behalf of itself and its Subcontractors:

a. That all information it submits to the WisDOT or the OCIP administrator shall be accurate and complete.

b. That Contractor, on behalf of itself and its Subcontractors, has had the opportunity to read and analyze copies of the OCIP binders and specimen policies that are on file in the WisDOT's office. Any reference or summary in the contract, this special provision, the Insurance Manual, or elsewhere in any other contract document as to amount, nature, type or extent of OCIP coverage's and/or potential applicability to any potential claim or loss is for reference only. Contractor and its Subcontractors have not relied upon said reference but solely upon their own independent review and analysis of the OCIP coverage's in formulating any understanding and/or belief as to amount, nature, type or extent of any OCIP coverage's and/or its potential applicability to any potential claim or loss.

c. That the costs of OCIP coverage's were not included in Contractor's bid or proposal for the Work, the contract price, and will not be included in any change order, change modification, or

any request for payment for the Work or extra work. The “costs of OCIP coverage’s” is defined as the dollar amount of premiums, costs and fees the Contractor and its Subcontractors would have paid its insurance carrier to insure the operations and exposures which are being insured under the OCIP.

d. That Contractor acknowledges that the WisDOT will not pay or compensate Contractor or any Subcontractor, in any manner, for costs of OCIP coverage’s or for “insurance costs” except as specifically required to be maintained by Contractor by the terms of this special provision.

11. Severability of Interests (Cross Liability):

All insurance required by this agreement (excluding only workers compensation insurance) shall include a provision or be endorsed to provide that, inasmuch as the policy is written to cover more than one insured, all terms, conditions, insuring agreements and endorsements, with the exception of limits of liability, shall operate in the same manner as if there were a separate policy covering each insured. No cross liability exclusions are permitted and there may not be any restrictions in any policies that limit coverage for a claim brought by an additional insured against a named insured. Also, there shall not be any provision in any insurance policy which excludes or conditions coverage on the existence of a contract or other agreement requiring insurance.

12. Breach of Insurance Requirements:

The Contractor’s failure to obtain and maintain insurance coverages as required by this agreement shall constitute a material breach of the Contract. In such event WisDOT may at its option: (i) terminate the Contractor for default; or (ii) purchase such coverage and backcharge the premium and associated costs to the Contractor; or (iii) at their respective option, WisDOT and/or an additional insured can require the Contractor and/or its Subcontractors to pay for attorney’s fees, expenses, damages and liability as a result of any claim or lawsuit to the extent coverage would have been provided to them under the Contractor’s insurance but for the Contractor’s breach WisDOT has the right to backcharge the Contractor for such sums. Furthermore, to the extent of their respective interest, the Insurers of those entities that were to be included as additional insureds are deemed to be third-party beneficiaries of the insurance procurement obligation.

13. **Subcontractor**:

Before permitting any Subcontractor to perform work under a subcontract, the Contractor shall require by written contract that the Subcontractor maintain insurance in like form and amounts to that required herein. The Contractor shall be responsible to ensure that each Subcontractor maintains insurance in like form and amounts and shall Provide evidence of same if requested. Contractor shall provide copies of its Subcontractor’s certificates of insurance coverage to WisDOT or the OCIP Administrator upon request.

14. Notice of Cancellation:

All insurance coverages required by this agreement shall contain a provision that the coverage afforded thereunder cannot be cancelled, non-renewed, allowed to lapse, or have any restricted modifications added unless at least thirty (30) days prior written notice has been given to WisDOT. The Contractor is responsible to provide replacement coverage conforming with the requirements of this agreement in the event of any cancellation, non-renewal or modification of any insurance coverages required by this agreement.

15. Limits of Insurance:

The Contractor's insurance coverage and any additional insured coverage provided to WisDOT and any additional insured shall be for the full amount of any loss up to the policy(s) limits of liability and shall not be limited to the minimum insurance requirements of this Contract. The Contractor is responsible for notifying its insurance carriers in the event of a loss or potential loss involving coverage for the additional insureds. However, this does not prohibit any additional insureds from reporting a claim directly to the Contractor's insurance carriers.

16. Deductibles/Denial of Claims:

The Contractor shall be responsible, at no additional cost to WisDOT, for the payment of any deductibles or self-insured retention in connection with the insurance coverages required by this agreement, both for itself and all additional insureds. Any self-insured retention or deductible must be declared in writing at the time the Contractor submits its bid and must be specifically approved by WisDOT prior to execution of the Contract. The Contractor shall be responsible for any loss arising out of coverage denial by its insurance carrier. The Contractor may not procure policies that limit who may pay the SIR or deductible; rather, any SIR shall be payable by either the Contractor or the Subcontractor and the Contractor may not have a policy that prevents WisDOT from accessing or triggering coverage unless the SIR is paid by the Contractor. Contractor shall also ensure that similar conditions are incorporated into all subcontracts. In the event that WisDOT is required to pay any deductible and/or SIR to access any insurance policy, Subcontractor shall promptly reimburse the Contractor for such payment.

17. No Waiver of Insurance Requirements:

IT IS EXPRESSLY AGREED BETWEEN WISDOT AND THE CONTRACTOR THAT THE FAILURE OF WISDOT TO REQUIRE OR VERIFY COMPLETE AND TIMELY PERFORMANCE OF THE CONTRACTOR'S OBLIGATIONS UNDER THIS CONTRACT SHALL NOT BE A WAIVER BY WISDOT OF ANY RIGHT OF WISDOT TO REQUIRE THE CONTRACTOR TO COMPLY WITH THESE INSURANCE REQUIREMENTS AND/OR TO SEEK DAMAGES BECAUSE OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS IN THIS CONTRACT.

18. Audits. Contractor agrees that the WisDOT, the OCIP administrator, and/or any OCIP insurer may audit Contractor's or any of its Subcontractor's Project payroll records, books and records, insurance coverage's, insurance cost information, or any other information that Contractor provides to the WisDOT, the OCIP administrator, or the OCIP insurers to confirm their accuracy and to assure that costs of OCIP coverage's are not included in any payment for the work.

19. The WisDOT's Election to Modify or Discontinue OCIP. The WisDOT may, for any reason, modify the OCIP coverage's, discontinue the OCIP, or request that Contractor or any of its Subcontractors withdraw from the OCIP upon thirty (30) days written notice. Upon such notice Contractor and/or one or more of its Subcontractors, as specified by the WisDOT in such notice, shall obtain and thereafter maintain at the WisDOT's expense, Contractor Maintained Coverages (or a portion thereof as specified by the WisDOT) of the OCIP coverage's. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to the WisDOT's approval.

20. Withhold of Payments. The WisDOT may withhold from any payment owing to Contractor the costs of OCIP coverage's if included in a request for payment. In the event the WisDOT audit of Contractor's records and information as permitted in the Contract, this special provision, or other contract documents reveals a discrepancy in the insurance, payroll, safety, or any other information required by the contract documents to be provided by Contractor to the WisDOT, or to the OCIP administrator, or reveals the inclusion of costs of OCIP coverage's in any payment for the work, the WisDOT will have the right to full deduction from the Contract Price of all such costs of OCIP coverage's and all audit costs. Audit costs will include but not be limited to the fees of the OCIP administrator, and the fees of attorneys and accountants conducting the audit and review. If the Contractor or its Subcontractors fail to timely comply with the provisions of this special provision or the requirements of the Insurance Manual, the WisDOT may withhold any payments due Contractor and its Subcontractors until such time as they have performed the requirements of this special provision. Such withholding by the WisDOT will not be deemed to be a default hereunder.

21. Waiver of Claim and Waiver of Subrogation:

Where permitted by law, Contractor hereby waives all rights of recovery under subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any, and any other Contractor or Subcontractor performing work or rendering services on behalf of the WisDOT in connection with the planning, development and construction of the Project, and Contractor shall require that all Contractor maintained insurance coverage related to the work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation for claims described above.

22. Waiver of Subrogation. Where permitted by law, Contractor shall also require that all Contractor maintained insurance coverage related to the work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any. Contractor shall require similar written express waivers and insurance clauses from each of its Subcontractors. A waiver of subrogation shall be effective as to any individual or entity even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

23. Conflicts. In the event of a conflict, the provisions of this special provision shall govern, then the provisions of the contract and its other related contact documents, then the provisions of the Insurance Manual.

24. Safety. Contractor shall be solely responsible for safety on the Project and safety relating to the Work. Contractor shall establish a safety program that, at a minimum, complies with all local, state and federal safety standards, and any safety standards established by the WisDOT for the Project, including the Project Safety and Health Plan Manual.

SEF-ZOO IC 15_0112

24. CPM Progress Schedule.

Replace standard spec 108.4.4.1 with the following:

(1) Submit a CPM Progress Schedule and updates.

(2) To ensure compatibility with the Master Program Schedule, use the latest version of Primavera P6 Project Management, by Oracle Corporation, Redwood Shores, CA, to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

(3) Within five business days after award, the department will provide its current standard Work Breakdown Structure and activity codes to use to develop the Initial CPM Progress Schedule.

(4) Designate a Project Scheduler who will be responsible for scheduling the Work and submit a professional resume describing a minimum of three years of scheduling experience on interstate-highway reconstruction work of similar size and complexity, including recent experience with P6. Obtain approval of the submitted resume before scheduling the work.

Replace standard spec 108.4.4.4(2) with the following:

(2) For each schedule update, submit electronic copies in an approved format and updated PDF printouts of the following:

1. Tabular sorts by:
   - Activity Identification/Early Start.
   - Total Float.
2. If applicable, an updated logic diagram as the engineer requires.
3. If augmenting the CPM schedule with a linear schedule, provide an update of the linear schedule.
4. Activities underway and as-built dates for the past month.

5. Agreement on the as-built dates with the department depicted in the Monthly CPM Progress Schedule Update. Document all disagreements. Use the as-built dates from the Monthly CPM Progress Schedule Update for the month when updating the CPM schedule.
6. Actual as-built dates for completed activities through final acceptance of the project.

sef-108-010 (20171004)

25. Force Account.

Supplement standard spec 109.4.5.1 (3)1 with the following:

Include accumulation of wages to date for each employee performing force account work and identify allowable Federal Unemployment Tax (FUTA) and State Unemployment Tax (SUTA) multipliers.

sef-109-005 (20141211)

26. Removing Old Culverts and Bridges.

Supplement standard spec 203.3.1 with the following:

Structure Removal Site Safety Plan

Prepare a Structure Removal Site Safety Plan covering all structure removal work included in the contract. Maintain posted copies of the Structure Removal Site Safety Plan at the site in the project field office. Provide two copies of the Structure Removal Site Safety Plan to the engineer at least four weeks before beginning removal work.

Examine the existing structure plans and visit the site before preparing and submitting the structure removal plan(s). The contractor is responsible for the methods and sequence of demolition, including effects on the overall stability of each structure being removed. At a minimum, each removal plan shall include:

1. The name of the professional engineer, registered in the state of Wisconsin who will be on site and monitoring the removal of existing structures as required in this specification.
2. The name of the contractor's on-site-employee designated in responsible charge of all removal operations.
3. The removal method and sequence of removal for each individual structure, including the staging of bridge removals.
4. Analysis of the stability of the structure based on the methods and sequence of demolition proposed, to ensure that the structure is demolished in a safe and controlled manner. The analysis computations shall be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
5. Design and details of temporary supports, shoring or temporary bracing, if required to stabilize portions of partially remaining structures during the removal sequence or support partially remaining structures after staged removals. Include design computations and detail drawings for all temporary supports, shoring and bracing that indicate the exact placement of the temporary supports, shoring or bracing; verification of design loads; attachment details; and methods for the safe transfer of loads from existing structural elements to be removed to the temporary supports, shoring, or bracing. Temporary support, shoring, or bracing design computations and drawings details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
6. Design and details of temporary support foundations. Include in the foundation design the evaluation of expected foundation settlement and the effect that this will have on the structure being supported. Temporary support foundation design computations and drawing details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
7. Equipment type and locations of equipment on the structure(s) or adjacent roadways during the removal operations
8. Locations and type of work to be performed directly adjacent to traffic.

9. Details and locations of protective covers and other measures to ensure that people, property and improvements will not be endangered or damaged as a result of the removal operations. Include methods for protecting any pavement surfaces including shoulders, concrete barriers, and other highway features.
10. Methods of removal, hauling and disposal, including haul routes and disposal destination.
11. A schedule of anticipated roadway and lane closures to accommodate removal operations. Include the timing of individual lane or temporary roadway closures and the nature of removal operations that will be performed during the lane or roadway closures.
12. Acknowledgement that the contractor and removal design engineer responsible for preparing the removal plan have visited the site and reviewed the existing structure plans in preparing the removal plan.

Structure Pre-Removal Meetings

After submission of the Structure Removal Site Safety Plan, schedule and conduct structure pre-removal meetings at a time agreed to by the engineer. Hold structure pre-removal meetings at least three working days before beginning structure removal activities. If the engineer agrees before, multiple structure removals can be combined and discussed at one structure pre-removal meeting. Otherwise, schedule and conduct a separate structure pre-removal meeting for each structure to be removed.

Supplement standard spec 203.3.2.1 with the following:

Perform structure removals conforming to the submitted Structure Removal Site Safety Plan.

Supplement standard spec 203.5.1(2) with the following:

Payment includes preparation and submittal of a Structure Removal Site Safety Plan; and performing all structure removal work conforming to the submitted plans.

sef-203-005 (20170310)

27. Pavement Breaking Equipment.

Use only hydraulic pavement breaking equipment for breaking pavement within 300 ft. of any structure. Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment. A multi-head hydraulic drop hammer is allowed unless a structure is within 50 feet of the roadway.

sef-204-005 (20140415)

28. Removing Concrete Barrier.

Supplement standard spec 204.3.2.2 with the following:

Under the Removing Concrete Barrier bid item, remove barrier and footing, unless specified in the plans, at the locations the plans show. Removal includes all required sawing conforming to standard spec 690.

Supplement standard spec 204.5.1(2) with the following:

Payment for Removing Concrete Barrier is full compensation for all required sawing and removal of existing barrier and footing, and sludge removal.

sef-204-025 (20171004)

29. Removing Concrete Base Type 13, Item 204.9060.S.3001.

A Description

This special provision describes Removing Concrete Base Type 13 in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Construction shall be in accordance to section 204.3 of the standard specifications.

Break down and remove the concrete base material to a depth 5' below grade or below the Type 13 concrete base wing, whichever depth is greater, at locations where complete removal of the base will impact construction and/or location of existing monotube concrete base does not interfere with construction. Fill the area to grade with similar material as adjacent to the base (topsoil/seed, concrete sidewalk, asphalt, etc).

Remove the entire monotube concrete base per 204.3 of the standard specifications if the location of the existing monotube concrete base interferes with construction.

D Measurement
The department will measure Removing Concrete Base Type 13 as each individual base acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.3001	Removing Concrete Base Type 13	Each

30. Removing Traffic Signals IH 94 EB Ramps & STH 100, Item 204.9105.S.3001.

A Description
This special provision describes removing Traffic Signals in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction
Arrange for the de-energizing of the traffic signals with the local electrical utility after receiving approval from the engineer that the existing traffic signals can be removed.

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, emergency vehicle preemption heads (EVP), mast arms, luminaires, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way. Neatly stockpile materials indicated for re-use in a safe and secure location until they are ready for installation. Neatly stockpile the remaining materials in a safe and secure area on-site for the department to pick-up. Contact the department's

Electrical Field Unit at (414) 266-1170 at least five working days prior to equipment pick-up to coordinate logistics.

D Measurement

The department will measure Removing Traffic Signals (location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.3001	Removing Traffic Signals IH 94 EB Off Ramp & STH 100	LS

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of scrap material, and for stockpiling the requested materials for department pick-up.

31. QMP Subgrade.

A Description

This special provision describes requirements for subgrade materials within the roadway foundation as defined in standard spec 101.3. Conform to standard spec 207 as modified in this special provision for all work within the roadway foundation at the following locations:

STH 100, Permanent Freeway Ramps, Temporary Widening, Local Roads, and Temporary Roads.

Provide and maintain a quality control program. A quality control program is defined as all activities, including process control inspection, sampling and testing, documentation, and necessary adjustments in the process that are related to the construction of subgrade which meets all the requirements of this provision.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

B Materials

B.1 Quality Control Plan

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform grading work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

-An organizational chart with names, telephone numbers, current certifications or titles, and roles and responsibilities of QC personnel.

-The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.

-An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

-Location of the QC laboratory, retained sample storage, and control charts and other documentation.

-A summary of the locations and calculated quantities to be tested under this provision.

-An explanation regarding the basis of acceptance for material that cannot be tested by nuclear methods due to a high percentage of oversized particles.

B.2 Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present at the site during all subgrade preparation, fill placement, compaction, and nuclear testing activities. Have a nuclear density technician certified under HTCP at level I perform field density and field moisture content testing.

B.3 Laboratory

Perform quality control testing in a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Laboratory
3502 Kinsman Boulevard
Madison, Wisconsin 53704-2583
Telephone: 608-246-7938
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx

B.4 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

http://www.atwoodsystems.com/.

Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge. Nuclear density gauge calibration verification is required daily when earthwork construction operations require testing under this special provision article. This calibration verification shall be performed using the departments "Validator" apparatus which is located at the Zoo Interchange construction field office, 2424 S. 102nd St., West Allis, Wisconsin 53227. Establish a standard gauge reading for the "Validator" using the ten test average method. The source emitter depth for calibration verification, in the direct transmission mode, will be determined by the engineer. This procedure will establish the "Validator" apparatus, as the contractor's project reference site.

Conform to ASTM D 2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

B.5 Soil Source Study

Conduct and submit a soil source study before beginning of grading operations. Ensure that this study identifies each distinct soil type on the project within the top 15 feet of cut areas and all borrow material. Provide the in-bank natural moisture content for each soil. Develop moisture-density curves for each identified soil type by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. Determine the maximum density and corresponding optimum moisture level for each soil type. Develop a site-specific family of Proctor curves for this contract from the completed soil source study and submit to the engineer for review and acceptance.

Perform characterization tests on each of the soil types selected for the soil source study. The tests for roadway include AASHTO T 89, AASHTO T 90, AASHTO T 27, and AASHTO T 11. Classify each soil type selected according to the AASHTO soil classification system based on the characterization tests. Do not begin grading operations until the engineer accepts the soil source study.

Use the soil types identified in the soil source study with corresponding maximum densities and optimum moisture values to determine the compaction compliance on the project. Continue the soil source study in those areas of cuts greater than 15 feet that were not accessible during the initial study. Include data on additional soil types if project conditions change. Ensure that tests of additional soil types are complete and the engineer accepts the results before incorporating the material into the roadway foundation.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department at:

Regional Materials Laboratory
Attn: Paul Emmons
935 S. 60th Street
West Allis, Wisconsin 53214
Telephone: 414-266-1158

Retain and identify 2 representative samples of each Proctor. Submit one sample to the engineer. Retain one sample on site for use when performing textural identification.

B.6 Quality Control Documentation

B.6.1 Control Charts

Maintain separate control charts for the field density and field moisture content of each grading area. Designate grading areas within the project as follows:

-Embankment portions of the project, except within 200 feet of bridge abutments.

-Embankment within 200 feet of bridge abutments.

-Subgrade cut portions of the project.

-Embankment in pipe culvert, sewer and waterline trenches.

-Structure and granular backfill placed at bridge abutments.

Ensure that all tests are recorded and become part of the project records. Plot required test results on the control charts. Include random and engineer-requested testing but only include the contractor's randomly selected QC test results in the 4-point running average. The contractor may plot other contractor-performed process control or informational tests on the control charts, but do not include them in 4-point running averages.

Post control charts in an engineer-approved location and update daily. Ensure that the control charts include the project number, the test number, each test element, the applicable control limits, the contractor's individual test results, the running average of the last 4 data points, and the engineer's quality verification test data points. Use the control charts as part of a process control system for identifying potential problems and assignable causes. Format control charts according to the CMM.

Submit control charts to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.6.2 Records

Document all observations, inspection records, and adjustments to fill placement procedures, soil changes, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record.

Provide copies of the field density and field moisture running average calculation sheets, the one-point Proctor tests, records of procedure adjustments, and soil changes to the engineer daily.

Submit original testing records to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.7 Contractor Testing

B.7.1 General

Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present during all subgrade preparation, fill placement, compaction, and testing. Have a nuclear density technician certified under HTCP at level I perform the testing for field density and field moisture content. During subgrade construction, use sampling and testing methods identified in the CMM to perform the required tests at randomly selected locations at the indicated minimum frequency for each grading area.

Determine the cubic yards for testing based on a total load count system the engineer and contractor agree to.

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 0.5 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location.

Test areas of suspect compaction or areas which appear to be nonconforming as determined by the engineer.

B.7.2 Field Density and Field Moisture

Perform the field density and field moisture tests using the nuclear density meter method according to AASHTO T 310. Ensure that each field density test material is related to one of the specific soil types identified in the soil source study in determining the percent compaction. Use textural identification as the primary method of establishing this relationship. Use the representative samples retained from the soil source study when performing the textural identification. Use a coarse particle correction according to AASHTO T 224.

If field density and field moisture tests cannot be performed by the nuclear density method due to a high percentage of oversized particles as determined according to AASHTO T 99 for highway embankments, observe the placement of the embankment and document the basis of acceptance. Document daily quantities of untested embankment and locations where untested embankment is placed, and keep a cumulative quantity of untested embankment material during the project. Include the daily documentation and a summary of the cumulative quantity of untested embankment material with the project records.

B.7.3 One-Point Proctor

Obtain a representative sample of the fill material and test according to AASHTO T 272. Compare the sample to the curves developed in the soils source study to determine the maximum dry density and optimum moisture. Use the appendix for AASHTO T 272 as a guide in this determination.

B.7.4 Testing Frequency

B.7.4.1 Subgrade Embankment portions of the project, except within 200 Feet of bridge abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 9,000 cubic yards or when a change in fill material occurs.

B.7.4.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 1,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 9,000 cubic yards or when a change in fill material occurs.

B.7.4.3 Subgrade Cut

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 1,000 linear feet of cut or one test per cut area whichever yields the most tests. The testing will be completed at the finished subgrade elevation.

B.7.4.4 Subgrade Embankment in Pipe Culvert, Sewer and Waterline Trenches

Perform the required tests at the following minimum frequencies per trench run between structures. Test trenches individually at the frequency listed in this section. For example, lateral lines and trunk lines are to be considered individual trenches:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 100 CY of backfill placed per lift or one test per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 3,000 cubic yards or when a change in fill material occurs.

B.7.4.5 Structure and Granular Backfill at Bridge Abutments

Perform the required tests at the following minimum frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 2 feet of vertical backfill height per abutment.
One-Point Proctor (AASHTO T 272)	One per 3,000 cubic yards or when a change in fill material occurs.

B.7.5 Compaction Zones

B.7.5.1 Subgrade Embankment portions of the project, except within 200 Feet of bridge abutments

Embankment material placed within 6 feet of the finished subgrade elevation is classified as upper zone material. Material placed more than 6 feet below the finished subgrade elevation is classified as lower zone material.

B.7.5.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

All embankment material placed within 200 feet of bridge abutments is subject to the quality controls for upper zone material.

B.7.5.3 Subgrade Cut

Subgrade material in cut areas is subject to the quality controls for upper zone material.

B.7.5.4 Subgrade Embankment in Culvert Pipe Trenches

Material placed within culvert pipe trenches is subject to the quality controls for the zone that the material is located in.

B.7.5.5 Structure and Granular Backfill at Bridge Abutments

All backfill material placed adjacent to bridge abutments is subject to the quality controls for upper zone material.

B.7.6 Control Limits

B.7.6.1 Field Density

B.7.6.1.1 General Conditions

The lower control limit for field density measurements in the upper zone is a minimum of 95.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272for the 4-point running average and a minimum of 92.0 percent of the maximum dry density for any individual test.

The lower control limit for field density measurements in the lower zone is a minimum of 93.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272 for the 4-point running average and a minimum of 90.0 percent of the maximum dry density for any individual test.

B.7.6.2 Field Moisture Content

B.7.6.2.1 General Conditions

The upper control limit for the field moisture content in the upper and lower zones is 105.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

The lower control limit for the field moisture content in the upper and lower zones is 65.0 percent of the determined optimum moisture for the 4-point running average. There is no lower control limit for the field moisture of material having less than 5 percent passing the No. 200 sieve.

B.7.7 Corrective Action

Notify the engineer if an individual field density test falls below the individual test control limit. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the subgrade material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

Notify the engineer if the field density or field moisture running average point falls below the running average control limit for field density or outside the control limits for field moisture. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the quality of the material represented by the running average point. Retest each corrected area at a new random location within its represented quantity and determine a new 4-point running average. If the new running average is not acceptable, perform further corrective actions and retest at new random locations.

If the contractor's control data is proven incorrect resulting in a field density or field moisture point falling below the control limit for field density or outside the control limits for field moisture, the subgrade is unacceptable. Employ the methods described in this special provision for unacceptable material.

B.8 Department Testing

B.8.1 General

The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all verification and independent assurance personnel for the project.

The department will provide field density and field moisture test results to the contractor on the day of testing. Test results from Proctor split samples will be provided to the contractor within 7 business days after the sample has been received by the department.

B.8.2 Verification Testing

The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified for contractor testing personnel for each test being verified. The department will notify the contractor before testing so the contractor can observe QV testing.

The department will test field density and field moisture randomly at locations independent of the contractor's QC work. The department will use split samples for verification of Proctor testing. In all cases, the department will conduct the verification tests in a separate laboratory and with separate equipment from the contractor's QC tests.

The department will perform verification testing as follows:

1. The department will conduct verification tests on Proctor split samples taken by the contractor. These samples may be from the Soil Source Study or the one-point Proctor or sample locations chosen by the engineer from anywhere in the process. The minimum verification testing frequency is one per 90,000 cubic yards, with at least one for each soil type identified in the Soil Source Study.
2. The department will test the first split sample obtained by the contractor for the one-point Proctor. The engineer may select any contractor-retained sample for verification testing.
3. The department will conduct at least one verification test for field density and field moisture per 20,000 cubic yards.

Plot verification tests on the contractor's quality control charts as specified in B.6.1. Do not include verification tests in the 4-point running average.

If verification tests are within specified control limits, no further action is required. If verification tests are not within specified control limits, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend grading work until action is taken. Resolve disputes as specified in B.9.

B.8.3 Independent Assurance Testing

Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program, which may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

Plot the independent assurance tests on the contractor's quality control charts as specified in B.6.1. Do not include independent assurance tests in the 4-point running average.

If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or cooperate in resolving identified deficiencies, the engineer may suspend grading work until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party tests to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.10 Acceptance

The department will accept the material tested under this provision based on the contractor QC tests unless it is shown through verification testing or the dispute resolution process that the contractor's test results are in error.

C (Vacant)

D (Vacant)

E Payment

Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor does not perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

sef-207-005 (20171004)

32. Concrete Masonry Structures.

A Description

A.1 General

Work under this item applies to cast in place concrete for structures. Conform to standard specs 501, 502, 504, 701, 710 and 715 and as modified in this special provision. Apply this special provision to all cast in place concrete placed under the following bid items:

502.0100 Concrete Masonry Bridges

A.2 Concrete Masonry Bridges

Work under the item Concrete Masonry Bridges applies to cast in place concrete for bridge substructures, which includes abutments and piers. Cast in place concrete for bridge superstructures, which includes bridge decks, raised medians, sidewalks, and parapets, is covered under the special provision item HPC Masonry Structures.

B (Vacant)

C Construction

Replace standard spec 501.3.8.2 with the following:

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions taken to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 90 F, do not place concrete under the following bid items:

Concrete Masonry Bridges

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, obtain information from similar mixes placed for other nearby work.

Any additive or action taken to control the temperature of the Concrete Masonry to within the limits of this special provision, excluding the addition of ice to the concrete mix, is considered incidental to the work and will not be measured or paid for separately.

Supplement standard spec 501.3 with the following:

501.3.11 Slip Forming

Do not place concrete by the slip-form method for any item covered by this special provision.

D (Vacant)

E (Vacant)

sef-504-005 (20171004)

33. Steel Bridge Construction Plan.

A Description

This special provision describes the requirements for furnishing Steel Bridge Construction Plans, to be referred to as the Construction Plan, to be prepared and submitted for each steel bridge structure on the project. Conform to the requirements of standard spec 506 except as modified in this special provision.

B (Vacant)

C Construction Plan

Supplement standard spec 506.3.2(2) with the following:

Submit the Construction Plan, signed and sealed by a professional engineer registered in the State of Wisconsin, at least 14 days before structural steel transport, delivery, and erection or as otherwise agreed to by the engineer for the following structures:

B-40-107
B-40-108

C.1 General

The contractor's submitted construction plan provides details of fabrication, transportation and shipment, steel bridge erection, and concrete deck placement on steel bridge girders. This plan may be based on, in whole or in part, any construction plan details shown in the contract documents or may be developed entirely by the contractor. The construction plan shall demonstrate the stability of the structure and individual components during each stage of construction, including while supported on temporary jacks or stands. Construction plan details

shown in the contract documents shall not be taken as supplanting or implying any supplantation of the contractor's responsibility for the fabrication, transportation, erection, or construction of any part of the bridge.

Provide details of the following:

- Demonstration of the structure and individual components' stability during each stage of construction.
- Fabrication procedures.
- Camber values.
  - Method of cambering and curving horizontally curved girders.
  - May be included and shown on the submitted fabrication shop drawings. If included in the submitted fabrication shop drawings, this should be noted in the submitted construction plan.
- A transportation plan.
- An erection plan.
- Deck placement details.

C.2 Transportation Plan

Provide a transportation plan as part of the submitted construction plan. Include shipping weights, lengths, widths, and heights of fabricated components and subassemblies; means of shipping; and shipping route.

Show the type, size, and locations of girder supports required and the types, size, and locations of tie-downs. Specify a sufficient number of tie-downs to provide adequate redundancy.

Girder stresses due to self-weight while being shipped shall be computed with a dynamic load allowance of 100 percent. Compute girder stresses according to Article 6.10.3.2 or 6.11.3.2 of the AASHTO LRFD Bridge Design Specifications, as applicable. Include these computations in the transportation plan.

Ensure that fatigue stresses do not exceed the constant-amplitude fatigue threshold for the appropriate categories in table 6.6.1.2.5-3 of the AASHTO LRFD Bridge Design Specifications.

Submit design computations detailing the determination of the required vertical and lateral support loads during steel girder erection. Ship girders in the same orientation as in the completed structure. Support girders so their cross-section shape is maintained and through-thickness stresses are minimized.

Provide supports as required during transportation to ensure that dynamic lateral bending stressed are minimized.

Specify and detail all stiffening trusses or beams, including temporary, to meet the requirements of the transportation plan.

C.3 Erection Plan

C.3.1 General

Include an Erection Plan as part of the Construction Plan. Include details of storage and handling at the site. Submit drawings, complete in detail for all anticipated phases and conditions during erection, and fully illustrating the proposed method of erection. Ensure the drawings show details of all falsework bents, bracing, guys, dead-men, lifting devices, and attachments to the bridge members; sequence of erection, location of cranes, crane capacities, elevations, location of lifting points on the bridge members, and weights of the members. Provide calculations to demonstrate that factored resistances are not exceeded and that member capacities and final geometry will be correct. Include the design and construction details of any temporary falsework supports.

Ensure the girders' stability and the cross-section shape of box girders are maintained throughout the construction process, including durations when temporarily using supports or jacks. Consider the stage of completeness of bolted connections when evaluating the strength and stability of the steel during erection.

The erection procedure shall conform to the submitted erection plan. Modifications to or deviations from the submitted plan require revised drawings and verification of stresses and geometry.

C.3.2 Camber Diagram

Include camber diagrams in the Erection Plan or submitted fabrication shop drawings showing the camber at location of field splices and fractions of span length (quarter points minimum).

Cambers shown in the contract drawings are based on the assumption that the deck concrete is placed uniformly and simultaneously on the whole bridge or unit, unless otherwise noted on the plans. Investigate the geometric response of the bridge based on the proposed deck placement sequence. In calculating and evaluating cambers, consider vertical, lateral, and twist deflections due to dead load. Carefully consider the sequence of load application and incremental curing of the deck concrete during staged placement of the deck on continuous span bridges. Address time dependent effects, including creep, shrinkage, and load shedding effects where appropriate. If the contractor deems these effects to be insignificant, include a statement to this effect in the construction plan.

Adhere to cambers provided on the contract documents unless the steel erection or deck placement is to be performed in a manner that will lead to deflections different from those used to determine the camber specified. If the contractor or the contractor's fabricator / detailer or erector intends other procedures or outcomes, the approach shall be confirmed with the engineer, before beginning fabrication.

C.3.3 Erection Falsework

Design falsework according to Section 3, "Temporary Works," of the AASHTO LRFD Bridge Construction Specifications to carry the vertical and lateral loads specified in the submitted Erection Plan. Set the elevation of falsework as necessary to support the girders at the cambered no-load elevation. If used in conjunction with the falsework, use jacks that have a stroke adequate to permit full unloading. Unload all temporary supports at each cross-section uniformly.

Submit design computations detailing the determination of the required vertical and lateral support loads during steel girder erection and construction details of all required falsework, including falsework foundation support. Ensure that falsework calculations and construction detail drawings are signed and sealed by a professional engineer registered in the State of Wisconsin.

C.3.4 Handling and Storing Materials

Indicate means and methods of structural steel material handling and storage on site in the submitted erection plan. Place materials to be stored at the project on skids above the ground. Keep the storage area clean and properly drained. Place girders and beams in upright positions held in place with adequate shoring and bracing. Support long members on skids placed near enough together to prevent damage and deformation from deflection.

C.3.5 Erection Stresses

Factored stresses due to self weight of the steel and wind at each stage of erection shall not exceed those computed according to the provisions of the AASHTO LRFD Bridge Design Specifications and as hereinafter specified. Provide computations which show that the factored constructions stresses satisfy the requirements of the Articles 6.10.3 and 6.11.3 "Constructability," of the AASHTO LRFD Bridge Design Specifications, as applicable.

Account for any erection stresses induced in the structure as a result of using a method differing from the assumptions given in the contract documents. . Submit design calculations for changed methods to the engineer. Also, calculate and submit any change in stresses or change in behavior for the temporary and final structures.

Provide temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

C.3.6 Maintaining Alignment and Camber

During erection, support segments of the structure in a manner that will produce the proper alignment and camber in the completed structure. Install cross frames and diagonal bracing as necessary during the erection process to provide stability and ensure correct geometry. If necessary, provide temporary bracing at any stage of erection.

C.4 Concrete Deck Placement Plan

C.4.1 General

Submit a Concrete Deck Placement Plan indicating the sequence and methods of deck placement on the erected structural steel. Place concrete in the sequence specified in the Construction Plan. The plan shall show that concrete placements are timed such that the prior placement has reached the age or strength specified. Identify any admixture agents to be used in the deck concrete mix. Specify the planned duration of each placement.

C.4.2 Concrete Deck Formwork

Include design and construction details of cast-in-place deck formwork including overhang brackets and forms. Attach overhang brackets to the top flange. If noted on the plans, overhang brackets must bear near the bottom flange within the limits noted If the overhang brackets bear against the web, ensure that precautions have been taken to prevent the permanent deformation of the web and excessive deflection of the wet slab and forms. Investigate the lateral force on the top flange due to overhang brackets to ensure that the flange is adequate as specified in Article 6.10.3.4 "Deck Placement" of the AASHTO LRFD Bridge Design Specifications.

Consider loads applied on the overhang brackets in determining lateral flange bending stresses cross-frame forces, and associated web and top flange deformations. If the loads or their application are to be different than those provided in the contract documents, make an additional analysis and submit supporting calculations as part of the Construction Plan.

C.5 Plan Conformance

Perform all steel bridge fabrication, transportation, erection and concrete deck placement according to the Construction Plan Submit a revised Construction Plan, including revised drawings and re-verification of stresses and geometry, before implementing any modifications to, or deviations from, the submitted Construction Plan.

D (Vacant)

E Payment

The department will not pay for steel bridge construction plans under a separate bid item. Include the cost of preparing and submitting the construction plan which includes additional requirements for steel fabrication shop drawings, a transportation plan, an erection plan, and a concrete deck placement plan, all supporting drawings, temporary bracing, design calculations and other specified documentation and conformance with the submitted plans in the bid item Structural Steel HS.

Provide additional material required to keep both the temporary and final erection stresses within the allowable limits used in design at no additional cost to the department. Provide additional documentation or submissions the engineer requires at no additional cost to the department. The department will not pay for additional calculations or submissions made due to changed methods.

sef-506-005 (20171004)

34. Cover Plates Temporary, Item 611.8120.S.

A Description

This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials
Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement
The department will measure Cover Plates Temporary as each individual unit 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
611.8120.S	Cover Plates Temporary	Each

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.
stp-611-006 (20151210)

35. Fence Safety, Item 616.0700.S.

A Description
This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

B Materials
Furnish notched conventional metal “T” or “U” shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction
Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement
The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, 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
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.
stp-616-030 (20160607)

36. Field Facilities.

Replace section 642 of the standard specifications with the following:

The department has procured its own Field Facilities located at 2424 S. 102nd Street; West Allis, WI 53227.

SEF-ZOO IC 14_1212

37. Covering Signs.

Replace standard spec 643.2.3.3(2) with the following:

(2) Ensure that covers are flat black, blank, and opaque.

Supplement standard spec 643.3.4.1 with the following:

(4) If multiple messages on a single sign are required to be covered, minimize the number of holes created by covering the sign with a single rectangular shaped covering. Multiple coverings on a single sign is only permissible where necessary to avoid covering necessary content or as directed by the engineer. Submit sign covering plans to the engineer for single signs requiring multiple coverings 3 days before performing work. Obtain engineer approval before covering signs. Remove sign coverings before placing fixed messages signs unless directed by the engineer.

sef-643-005 (20171004)

38. Traffic Control.

Supplement 643.3.1 of the standard specifications with the following:

Provide the Milwaukee County Sheriff's Department, the Wisconsin State Patrol, West Allis City Police Department and the project engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not park or store equipment, contractor’s and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of the freeway. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live freeway traffic lanes of with equipment or vehicles.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

Do not disturb, remove or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

Flagging operations shall follow section 104.6.1.(4) of the standard specs and chapter 6E of the WMUTCD.

Replace 643.3.1.(7) of the standard specs with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.
SER-643.1 (20170808)

39. General Requirements for Electrical Work.

Replace standard spec 651.3.3 (3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

40. Traffic Signals, General.

State Owned Traffic Signals
Work under this item shall consist of furnishing and installing some materials; salvaging and installing other materials; and installing department provided materials for the department owned traffic signal at IH 94 EB Off Ramp & STH 100.

41. Electrical Conduit.

Replace standard spec 652. 5 (2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

Replace standard spec 652.5 (5) with the following:

(5) Payment for Conduit Loop Detector is full compensation for providing all materials, including conduit, compacted backfill, surface sealer if required, pull wire if required, condulets, conduit fittings, and for making necessary connections into existing pull box, manhole, junction box or communication vault.

42. Traffic Signal Faces.

Append standard spec 658.3(5) with the following:

(5) Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

43. Pedestrian Push Buttons.

Replace standard spec 658.2(5) with the following:

(5) Furnish freeze-proof ADA compliant pedestrian push buttons made by a department-approved manufacturer. Place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

44. Temporary Traffic Signals for Intersections IH 94 EB Off Ramp & STH 100, Item 661.0200.3001.

Replace standard spec 661.2.1 paragraph (3) with the following:

(3) Use the existing underground electric service and/or meter breaker pedestal for the operation of the Temporary Traffic Signal at IH 94 EB Off Ramp & STH. The department will pay for all energy costs for the operation of the Temporary Traffic Signal.

Coordinate with the Traffic Control contractor for the installation of temporary stop signs during switch over of the signal service whenever a generator is used. Placement of signs shall be according to the MUTCD, Signing Guidelines Manual and Work Zone Safety Guide.

Replace standard spec 661.3.1.1(2) with the following:

(2) Place the pole in the ground to no less than 1/5 of the pole's length as the plans show. Sawcut existing pavement and concrete curb and gutter as needed to install the wood poles and guy wire anchors. Sawcut existing pavement according to the pertinent provisions in standard spec 690.3, Construction. Remove pavement and concrete curb and gutter as shown on the plans and if needed to install the wood poles and guy wire anchors. Remove only as much pavement as needed to install the wood poles. Remove pavement and curb and gutter according to the pertinent provisions in Section 204.3, Construction. Hold any wood poles in place and/or move wood poles during construction due to conflicts with proposed work.

Replace standard spec 661.5(2) with the following:

(2) Payment for the Temporary Traffic Signals for Intersections bid item is full compensation for providing, operating, maintaining, and repairing the complete temporary installation; and for removal. Payment also includes the following:

1. Providing replacement equipment.
2. The cost of delivery and pick-up of the cabinet assemblies for department testing.
3. Removal of service and site restoration.
4. Traffic signal controller programming and timings (including timing changes).

Payment is full compensation for drilling holes; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding, and backfilling, including any sand or other

required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; for making inspections; for performing any and all maintenance related to the temporary traffic signal installation; for cleaning up and properly disposing of waste; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

45. HPC Masonry Structures, Item SPV.0035.4000.

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502 and 509, as modified in this special provision. This special provision also describes QMP concrete pavement and structures. Conform to standard spec 715 as modified in this special provision.

Modify the standard spec as follows:

501.2.5.4.1 General

Replace the entire text with the following:

(1) Use clean, hard, durable crushed limestone with 100percent fractured surfaces and free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.

(2) Use virgin aggregates only.

501.2.5.4.2 Deleterious Substances

Replace paragraph one with the following:

(1) The quantity of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Chert[1]	1.0

[1] Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on a 3/8-inch sieve by the weight of the total sample.

501.2.5.4.3 Physical Properties

Replace paragraph one with the following:

(1) The department will ensure that Los Angeles wear testing conforms to AASHTO T 96, soundness testing conforms to AASHTO T 104 using 5 cycles in sodium sulfate solution on aggregate retained on the No. 4 sieve, and freeze-thaw soundness testing conforms to AASHTO T 103. The percent wear must not exceed 30, the weighted soundness loss must not exceed 6 percent, and the weighted freeze-thaw average loss must not exceed 15 percent.

501.2.9 Concrete Curing Materials

Replace the entire text with the following:

(1) Furnish burlap conforming to AASHTO M 182, class 1, 2, 3 or 4.

501.3.2.4.3.3 Extended Delivery Time

Delete paragraph one.

501.3.5.1 General

Replace paragraph one with the following:

(1) Use central-mixed concrete as defined in 501.3.5.1(2) for all work under this special provision.

501.3.5.2 Delivery

Replace paragraph three with the following:

(3) Deliver and discharge all concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60 F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump

Replace the entire text with the following:

(1) Use a 2-inch to 4-inch slump

(2) Perform the slump tests for concrete according to AASHTO T 119.

501.3.8.2.1 General

Replace paragraphs one and two with the following:

(1) Take the following steps to ensure the quality of the concrete placed. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

(2) If the concrete temperature at the point of placement exceeds 80 F, do not place concrete for items covered in this special provision.

501.3.8.2.2 Bridge Decks

Replace the entire text with the following:

(1) Do not place concrete for bridge decks when the air temperature is above 80 F.

(2) For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. If the engineer accepts an evaporation control plan calling for ice, the department will pay $0.75 per pound for that ice. Perform the work as outlined in the evaporation control plan.

(3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.

(4) Provide evaporation rate predictions to the engineer 24 hours before each bridge deck pour.

(5) Compute the evaporation rate from the predicted air conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in CMM 5.25, figure 1. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.

(6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether or not to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the engineer's discretion, the contractor may be allowed to implement immediate corrective action and complete the pour. If the engineer

allows the placement to continue, the department will pay $0.75 per pound for the quantity of ice required to maintain the concrete surface evaporation at or below 0.15 pounds per square foot per hour.

502.3.2.1 Detailed Plans

Replace the entire text with the following:

(1) As specified in 105.2, submit four copies of detailed plans and computations for falsework, signed and sealed by a Professional Engineer registered in the State of Wisconsin, three weeks before erection of falsework for review and acceptance. Acceptance of the detailed plans and computations will in no way relieve the contractor of the responsibility of providing a safe and stable structure, and obtaining satisfactory results.

502.3.5.4 Superstructures

Delete paragraph six.

502.3.7.8 Floors

Replace paragraph five with the following:

(5) Set the rails or tracks that the finish machine rides on, to the required elevation; and ensure they adjust to allow for settlement under load. Support the rails or tracks outside the limits of the finished riding surface. Do not support rails or tracks on the tops of girders, or within the finished riding surface, without the engineer's written permission.

Delete paragraph thirteen, fourteen, and fifteen.

Add the following to the end as paragraphs nineteen, twenty, twenty-one, twenty-two, and twenty three.

(19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.

(20) Keep hand finishing, except for the edge of deck, to a minimum. Equip the finishing machine with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck within a timeframe acceptable to the engineer following the micro texture.

(21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

(22) Place HPC Masonry Structures for bridge decks during nighttime hours. Begin work no earlier than two hours before sunset and end no later than 2 hours after sunrise; unless alternate begin and end times are approved before the concrete placement by the engineer. To determine acceptable hours, use the sunset and sunrise times published by the National Weather Service for the proposed date of the concrete placement or as mutually agreed to by the contractor and the engineer.

(23) Provide lighting as necessary to safely perform the required work and facilitate inspection during nighttime hours. Ensure that lighting does not interfere with or impede traffic on open roadways and does not cause glare, shine or directly face the eyes of oncoming drivers. After initial setup, drive through and observe the lighted work area from each direction on the main roadway. Adjust lighting alignment if lighting causes glare, shine or directly faces the eyes of oncoming drivers

502.3.8.1 General

Replace paragraph one with the following:

(1) Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2.1 General

Replace the entire text with the following:

(1) Wet-cure the concrete for bridge decks, structural approach slabs, sidewalks on bridges and raised medians on bridges for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

(2) Do not uncover any portion of the deck during the first 7 days of the curing period except as allowed by the engineer.

(3) Set up and test the fogging system before each bridge deck, structural approach slab, bridge mounted sidewalk or bridge mounted raised median pour. Keep the fogging system set up and operational during the pour.

502.3.8.2.3 Decks

Delete the entire text.

502.3.8.2.4 Parapets

Replace the entire text with the following:

(1) Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap within a timeframe acceptable to the engineer after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to 502.2.6.4

(2) Secure coverings along all edges to prevent moisture loss.

502.3.9.6 Bridge Decks

Replace paragraph two with the following:

(2) Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32° F during the cold weather protection period. Maintain a minimum temperature of 40° F in the enclosed area under the deck for the entire 14-day curing period.

502.5.1 General

Replace paragraph one with the following:

(1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.4000	HPC Masonry Structures	CY

Lighting for nighttime bridge deck placement is included.

710.5 Sampling and Testing

Add the following subsection:

710.5.7 Chloride Penetration Resistance

(1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T 277 (Rapid Chloride Permeability Test) at a frequency of 1 test per 3 months (quarterly) of production.

(2) Strip permeability samples for AASHTO T 277 testing of their molds and wet cure to an age of 7 days in a standard moist room or water tank. After 7 days, submerge the samples in water heated to 100 F until an age of 28 days. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T 277.

(3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on the AASHTO T 277 Rapid Chloride Permeability test. Chloride resistance testing conducted quarterly using AASHTO T 277 Rapid Chloride Permeability Test during production will not be used for acceptance of previously accepted mixes and concrete masonry mixed and placed according to the contract requirements. For quarterly chloride resistance test results exceeding 1500 coulombs, the department may require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

715.2.3.2 Structures

Replace paragraph one with the following:

(1A) Develop and test each mix to be used for HPC Masonry Structures. Produce a laboratory trial mix for each mix, as well as a trial mix from each plant used to supply the project. Test all mixes at a department-qualified laboratory.

(1B) The laboratory trial mix data must include the results of the following tests:

1. AASHTO T 119 Slump of Hydraulic Cement Concrete.
2. AASHTO T 121 Mass per Cubic Foot, Yield
3. AASHTO T 152 Air Content.
4. AASHTO T 22 Compressive Strength.
5. AASHTO T 277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to 710.5.7 (2) in this special provision.
6. AASHTO T 309 Temperature.
7. Water Cement Ratio.

(1C) The 28-day compressive strength must be at least 4000 psi. The 28-day results of the permeability test must be at most 1500 coulombs.

Replace paragraph two with the following:

(2) Provide a cementitious content within a range of 470 to 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash, class F fly ash, or grade 100 or 120 slag as a partial replacement for portland cement. For binary mixes use fly ash within a range of 15 to 30 percent or slag within a range of 20 to 30 percent. For ternary mixes use fly ash plus slag in combination within a range of 15 to 30 percent. Percentages are stated as percent by weight of the total cementitious material in the mix.
2. Use a type IP, IS, or IT blended cement.

sef-715-005 (20171004)

46. Backfill Slurry, Item SPV.0035.8001.

A Description

This special provision describes furnishing and placing Backfill Slurry. Conform to standard spec 209 except as hereinafter modified.

B Materials
Replace standard spec 209.2.2 with the following:

(1) Use aggregates that conform to the gradation conforming to 501.2.5.3 for fine aggregate and for Size No. 1 in 501.2.5.4 of the standard specs. Provide aggregates in the same proportion by weight as for Grade A concrete as in 501.3.2.2 of the standard spec. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water meeting the requirements of standard spec 501.2.4 to enable the mixture to flow readily.

C Construction
Replace standard spec 209.3 with the following:

Discharge from the truck in a manner to prevent segregation. Completely fill excavation in a single operation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

D Measurement
Replace standard spec 209.4 with the following:

The department will measure Backfill Slurry in volume by the cubic yard of material placed and accepted. Such volume shall be computed from actual measurements of the dimensions of the area to be backfilled. In irregular or inaccessible areas, the engineer may allow volume to be determined by other appropriate methods.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.8001	Backfill Slurry	CY

Payment is full compensation conforming to standard spec 209.5.(2) and 209.5.(5).
SER-209.1 (20161208)

47. Concrete Barrier Type S42 End Anchor, Item SPV.0060.0162.

A Description

This special provision describes constructing end anchorages for single slope concrete barrier conforming to standard spec 603, details shown in the plans and as modified in this special provision.

B (Vacant)

C Construction

Construct the Concrete Barrier Type S42 to present a smooth, uniform appearance in its final position conforming to the horizontal and vertical lines the plans show or ordered by the engineer, and free of lumps, sags or other irregularities.

D Measurement

The department will measure Concrete Barrier Type S42 End Anchor as each individual end anchor 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.0060.0162	Concrete Barrier Type S42 End Anchor	EACH

Payment is full compensation for providing the barrier end anchor; for excavating and backfilling; for disposing of excess material; and for restoring the grade.

sef-603-005 (20170310)

48. Traffic Control Local Road Lane Closures, Item SPV.0060.0403.

A Description

This special provision describes closing and reopening a local road lane or lanes, including full closure conforming to standard spec 643, the plans, and as directed by the engineer.

B (Vacant)

C Construction

Install or reposition traffic control devices required for closing a local road or lanes of a local road. Remove or return traffic control devices to their previous configuration when the closure is no longer required.

D Measurement

The department will measure Traffic Control Local Road Lane Closures by each individual closure acceptably completed. The department will not measure the closure of a local road not deemed necessary by the engineer.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0403	Traffic Control Local Road Lane Closures	EACH

Payment is full compensation for closing and re-opening a local road lane or lanes.

sef-643-035 (20171004)

49. Lamp Disposal High Intensity Discharge, Item SPV.0060.1010.

A Description

This special provision describes the packaging and delivering of high intensity discharge (mercury vapor, metal halide, and high-pressure sodium) lamps removed under this contract to the "destination facility" for disposal as hazardous materials.

B (Vacant)

C Construction

All removed lamps shall be handled to prevent breakage. Any broken bulbs shall be disposed of in the same manner as unbroken. All bulbs shall be sent to a commercial lighting lamp recycler, meeting the definition of a "destination facility" and operate under a state permit or RCRA equivalent authority to perform lamp recycling in accordance with RCRA 40 CFR 273.6. Provide a copy of the paid bill from the recycler to the DOT to prove the proper handling of the lamps. The bill needs to identify the total quantity of each type of lamps received. Web site www.lamprecycle.org provides information on recyclers. Inclusion of a recycler in the above web site does not constitute an endorsement by the DOT.

D Measurement
The department will measure Lamp Disposal High Intensity Discharge as each individual unit delivered to the destination facility. Payment will be contingent upon the DOT receiving a copy of the paid lamp recycler's (destination facility) bill for the disposal of the lamps. Bill must identify the quantity of each types of lamps disposed. Email the paid bill to SE Region Lighting Engineer Mr. Eric Perea at Eric.Perea@dot.wi.gov. Payment will not be made if the bill is incomplete or illegible.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1010	Lamp Disposal High Intensity Discharge.	Each

Payment is full compensation for handling, packaging, delivering the lamps to an authorized destination facility and emailing a copy of the paid bill to the DOT; and for labor, tools, equipment and incidentals necessary to complete the work.

Payment will be in addition to payment for the work under which the lamps are removed from service.

50. Relocating Light Poles Arms and Luminaires, Item SPV.0060.1019.

A Description
The work under this item shall consist of removing lighting pole, arm and luminaires (lighting units) from the locations shown in the plans, and reinstalling lighting unit at a new location as shown in the plans, in accordance to the applicable provisions of sections 204, 655 and 659 of the standard specifications or delivering the units to a specific location.

B (Vacant)

C Construction
Inspect the pole, arm and luminaire prior to removing from the existing base. Inform the engineer of any items of concern or potential problems that may interfere with the reuse of the pole, arm or luminaire. Minimize the time between removal from the existing base and reinstallation on the new base. Pole, arm and luminaires shall be stored in an area where unit will not be subjected to vandalism or theft. Bases will be paid as a separate item and are not included herein. Replace the existing bulb with a new one of the same type if the luminaire is not an LED type. The existing bulb, if HID, is to be returned to the DOT under bid item Lamp Disposal High Intensity Discharge.

D Measurement
The department will measure Relocating Light Poles, Arms and Luminaires by each individual light pole 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.0060.1019	Relocating Light Poles Arms and Luminaires	Each

Payment is full compensation for removing and reinstalling lighting pole, arms, and luminaires; for inspecting prior to removal; for transporting and storing materials; for replacing bulbs; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

51. Salvaging Light Poles Arms and Luminaires, Item SPV.0060.1020.

A Description
The work under this item shall consist of salvaging lighting pole, arm and luminaires (lighting units) from the locations shown in the plans, and transporting and handing over lighting unit to the city of West Allis, the city shop at W. McGeoch Ave.

B (Vacant)

C Construction
Inspect the pole, arm and luminaire prior to removing from the existing base. Inform the engineer of any items of concern or potential problems that may interfere with the reuse of the pole, arm or luminaire. Minimize the time between removal from the existing base and transportation of lighting unit to the city of West Allis, the city shop at W. McGeoch Ave.

Pole, arm and luminaires shall be stored in an area where unit will not be subjected to vandalism or theft. The existing bulb, if HID, is to be disposed of under bid item Lamp Disposal High Intensity Discharge.

D Measurement
The department will measure Salvaging Light Poles Arms Luminaires by each individual light pole 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.0060.1020	Salvaging Light Poles Arms and Luminaires	Each

Payment is full compensation for removing and salvaging lighting pole, arms, and luminaires; for inspecting prior to removal; for transporting and storing materials; for coordinating with the City; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

52. Concrete Bases Type 1 Spread Footing, Item SPV.0060.3001.

A Description
Work under this specification shall be done in accordance to Section 654 of the standard specifications, contract plan detail, and these special provisions.

B Materials
Materials shall be in accordance to Section 654 of the standard specifications.

C Construction
Construction shall be in accordance to Section 654 of the standard specifications.

D Measurement
The department will measure Concrete Bases (Type) bid items as each individual base 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.0060.3001	Concrete Bases Type 1 Spread Footing	Each

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; for bar steel reinforcement, if required; for

excavating, backfilling, and disposing of surplus materials; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

53. Install Salvaged Pedestal Bases, Item SPV.0060.3002; Transformer Bases Breakaway 11 ½-Inch Bolt Circle, Item SPV.0060.3003; Poles Type 2, Item SPV.0060.3004; Poles Type 3, Item SPV.0060.3005; Traffic Signal Standards Aluminum 10-Foot, Item SPV.0060.3006; Luminaire Arms Single Member 4-Inch Clamp 6-Foot, Item SPV.0060.3007; Pedestrian Push Buttons, Item SPV.0060.3008; Luminaires Utility LED C, Item SPV.0060.3009; Traffic Signal Head 3-12 Inch Vertical, Item SPV.0060.3010; Pedestrian Signal Head 16-Inch, Item SPV.0060.3011.

A Description
Work under this specification shall be done in accordance to Sections 657 and 658 of the standard specifications and these special provisions.

B Materials
Use materials salvaged from the existing traffic signal installation.

C Construction
Construction shall be in accordance to Sections 657 and 658 of the standard specifications.

D Measurement
The department will measure Install Salvaged (equipment) bid items as each individual item 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.0060.3002	Install Salvaged Pedestal Bases	Each
SPV.0060.3003	Install Salvaged Transformer Bases Breakaway 11 ½-Inch Bolt Circle	Each
SPV.0060.3004	Install Salvaged Poles Type 2	Each
SPV.0060.3005	Install Salvaged Poles Type 3	Each
SPV.0060.3006	Install Salvaged Traffic Signal Standards Aluminum 10-FT	Each
SPV.0060.3007	Install Salvaged Luminaire Arms Single Member 4-Inch Clamp 6-FT	Each
SPV.0060.3008	Install Salvaged Pedestrian Push Buttons	Each
SPV.0060.3009	Install Salvaged Luminaires Utility LED C	Each
SPV.0060.3010	Install Salvaged Traffic Signal Head 3-12 Inch Vertical	Each
SPV.0060.3011	Install Salvaged Pedestrian Signal Head 16-Inch	Each

Payment is full compensation for installing salvaged equipment.

54. MMSD Sanitary Manhole Reconstruct, Item SPV.0060.5102.

A Description
This special provision describes the reconstruction of a MMSD sanitary manhole to the elevation as shown in the plans.

B Materials

B.1 Manhole

Manhole cone sections shall be constructed of precast reinforced concrete sections. Precast manholes and cones shall conform to ASTM Specifications, C478, latest revision.

Steel reinforcement shall conform to C478 requirements of ASTM specifications.

B.2 Frame and Cover

Salvage and re-use existing MMSD manhole frame and cover.

B.3 Internal Manhole Chimney Seal

Provide internal manhole chimney seals unless specified otherwise in the plans and construction details. Where MMSD is to provide and install the internal manhole chimney seal, contact Bob Rebitski, (414) 225-2214.

B.4 Concrete Adjusting Rings

MMSD to provide and install concrete adjusting rings. Contact Bob Rebitski, 414-225-2214.

B.5 Joints

Joints for precast manholes shall meet the requirements of ASTM C443, latest revision, except that sealant shall be butyl rubber gasket or butyl rubber rope. Flexible butyl rubber gaskets or rope shall comply with the physical requirements for Type "B" gaskets in AASHTO Designation M-198, or Federal Specification SSS-00210-A, sealing compound, preformed plastic for expansion joints and pipe joints.

Finish joints with a non-shrink grout finish meeting the requirements of ASTM C928.

B.6 External Manhole Joint Seal

External manhole joint seal shall conform to ASTM C877 Type II, and installed per manufacturer's recommendations.

B.7 Steps

All manholes shall be provided with steps equally spaced vertically on center installed by the manufacturer as shown on the standard detail sheet. Steps shall be embedded into the riser or conical top section of the wall a minimum of 3 inches. Manhole steps shall be Type PS2-PFS as manufactured by M.A. Industries, Peachtree City, GA 30269; or equal with ½-inch diameter Grade 60 steel reinforcement coated with copolymer polypropylene plastic. Install steps 15-inch on center. Provide certified test data that the steps are capable of withstanding an 800-pound vertical load without sustaining more than a 3/8-inch permanent set when tested according to Section 10 of ASTM C497.

B.8 Bentonite Waterstops

Bentonite waterstops shall be 1-inch by 3/4 inch size flexible strip of bentonite waterproofing compound with an adhesive surface on one side of the strip, waterstop Type RX.

B.9 Bonding Agent

Bonding agent for use on existing concrete surfaces shall be Sikastix 370, Sikadur Hi-Mod; Horn Co. Epoxtite Binder 2385; or equal.

B.10 Granular Backfill

Granular backfill shall meet the requirements of section 8.43.4 of the SSSW.

C Construction

C.1 General

Notify Larry Anderson (MMSD), 414-225-2241, at least three days in advance of the commencement of construction.

Reconstruct manhole as shown in the plans and construction details.

Install precast concrete cone section and barrel. Salvage and reinstall existing frames and covers.

The sewer line shall be kept free of debris at all times. Take care to prevent any loose material from entering outlet sewer lines. The existing inside drop shall be protected from damage, including, but not limited to, falling debris.

C.2 Backfill
Fill the excavation with granular backfill in conformance to section 2.6.2 of the SSSW unless specified otherwise on plans, to existing surface or to appropriate depth for pavement restoration. Consolidate backfill in conformance to section 2.6.14(b) of the SSSW.

Remove all trash from the excavation before placing any backfill. Backfill shall be brought up uniformly around manholes and structures to prevent unbalanced lateral loading.

D Measurement
The department will measure MMSD Sanitary Manhole Reconstruct as a unit for each individual manhole, 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.0060.5102	MMSD Sanitary Manhole Reconstruct	EACH

Payment is full compensation for furnishing and installing all materials including pre-cast cone section, steps, gaskets, joint seals, concrete, steel reinforcement, waterstops, backfill material; for furnishing all excavation, dewatering, bypass pumping, sheeting and shoring; for cutting and removing existing corbel brick chimney to existing concrete, for backfilling including mechanical compaction and compaction testing; for removing sheeting and shoring; for furnishing all testing; for disposal of all surplus or waste material; and for clean-up.

55. Pavement Cleanup Project 2030-14-70, Item SPV.0075.0001.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site. Pavement Cleanup includes surveillance and reporting of all active haul routes.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Use vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified in this special provision or approved by the engineer.

C Construction

C.1 Surveillance

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and all sweeping recommendations in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities.

C.2 Pavement Cleanup

Keep all pavements, sidewalks, driveways, curb lanes and gutters within the project boundaries, free of dust and debris generated from all activity under the contract. Keep all pavements, sidewalks, driveways, curb lanes, and gutters adjacent to the project free of dust and debris that are caused by land disturbing, dust generating activities, as defined in the contractor's Dust Control Implementation Plan (DCIP). Provide routine sweeping of all pavements, sidewalks, driveways, curb lanes and gutters on local-street active haul routes as defined in the DCIP or as directed by the engineer. Include the following roadways for routine sweeping:

- STH 100 (W. Greenfield Avenue to W. Bluemound Road)
- Colder's Service Road (STH 100 to Hank Aaron State Trail)
- And all other roadways approved by the department

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to eliminate dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Coordinate with engineer to determine deadlines for responding to emergency sweeping requests and cleaning up spillage and material tracked to/from the project.

Skid steers with mechanical power brooms may only be used on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer. Do not dry sweep. Ensure all broomed equipment used for sweeping has a functioning water bar.

D Measurement

The department will measure Pavement Cleanup Project 2030-14-70 by the hour acceptably completed.

Tickets shall include:

- Date
- Company
- Operator name
- Equipment make/model
- Routes swept
- Total hours.

Total hours shall be to the nearest 0.25 hour that work under this item was performed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0001	Pavement Cleanup Project 2030-14-70	HR

Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials.

sef-104-006 (20170323)

56. Ice HPC Hot Weather Concreting, Item SPV.0085.0900.

A Description

This work consists of furnishing ice for use in HPC Masonry Structures concrete mixes to meet the concrete surface evaporation rate and mix temperature requirements specified for hot weather concreting in the contract special provision item HPC Masonry Structures.

B Materials
Water used to produce ice shall meet the requirements of standard spec 501.2.4.

C Construction
To meet the concrete surface moisture evaporation rate and mix temperature requirements specified in standard spec 501.3.8.2 as modified in the contract special provision article HPC Masonry Structures, the contractor may elect to use ice or be directed by the engineer to use ice in concrete mixes for the item HPC Masonry Structures.

D Measurement
The department will measure Ice HPC Hot Weather Concreting by the pound acceptably completed.

E Payment
The department will pay for measured quantities at the specified contract unit price of $0.75 per pound under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.0900	Ice HPC Hot Weather Concreting	LB

Payment is full compensation for supplying and adding ice to concrete mixes for the item HPC Masonry Structures as specified herein.

For the item Ice HPC Hot Weather Concreting, the department will pay $0.75 per pound for the quantity of ice required to meet concrete surface evaporation rate or concrete mix temperature limits specified in the contract for the item HPC Masonry Structures.

57. Concrete Barrier Temporary Precast Anchoring, Item SPV.0090.0410.

A Description
This special provision describes anchoring temporary concrete barrier. Perform this work in accordance with applicable portions of standard spec 603 and as hereinafter provided.

B (Vacant)

C Construction
Perform this work in accordance with standard spec 603.3.2.1, the plans, and as hereinafter provided.

Under the Concrete Barrier Temporary Precast Anchoring bid item, furnish, deliver, and install anchors at the locations shown in the plans, as required by the project conditions, or as directed by the engineer. Install anchors during the initial installation of the temporary concrete barrier and during any subsequent reinstallations of the temporary concrete barrier as required.

Remove any anchoring during barrier removal and fill remaining holes with epoxy.

D Measurement
The department will measure the Concrete Barrier Temporary Precast Anchoring by the linear foot acceptably completed, measured as the linear feet of barrier initially installed or reinstalled. The department will not measure anchoring made solely to accommodate the contractor's means and methods.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0410	Concrete Barrier Temporary Precast Anchoring	LF

Payment is full compensation for furnishing, delivering, and installing anchoring devices; for removal of any anchoring devices and filling holes with epoxy.

58. Concrete Barrier Temporary Precast Anchored on Bridge, Item SPV.0090.0412.

A Description
This special provision describes anchoring temporary concrete barrier on existing bridge decks. Perform this work in accordance with applicable portions of standard spec 603, the plans, and as hereinafter provided.

B Materials
Provide barrier materials in accordance with applicable portions of standard spec 603.2.

For the anchoring system, provide all miscellaneous mounting hardware in accordance with the details shown in plans. Provide shop drawings for the anchoring system to the Department for approval prior to installation.

C Construction
Perform this work in accordance with standard spec 603.3, the plans, and as hereinafter provided.

To accommodate anchors through an existing bridge deck, core a hole through the bridge deck at each anchor location and install anchoring bolts or rods and hardware to securely tie the barrier to the bridge deck. With the approval of the engineer the contractor may propose and use an alternate method of core hole locating. The contractor is responsible for accurately locating the core holes for barrier installation in all cases. The contractor shall submit shop drawings for the anchoring system to the Department for review prior to installation.

Prior to coring the bridge deck, place the barrier to mark coring locations, relocate barrier to complete the bridge deck cores, and install the barrier with the anchors at the required locations to line up with the core holes.

Remove anchors for temporary barrier on bridge decks as part of any removal of bridge decks or relocation of the temporary barrier that may be required. Repair any damage to the existing structure from installation or removal of the anchors if the bridge deck is required to continue to carry traffic.

D Measurement
The department will measure the Concrete Barrier Temporary Precast Anchored on Bridge by the linear foot, acceptably completed, measured as the linear feet of barrier installed and anchored. The department will not measure anchoring made solely to accommodate the contractor's means and methods.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0412	Concrete Barrier Temporary Precast Anchored on Bridge	LF

Payment is full compensation for furnishing, delivering, and installing anchoring devices including bridge deck coring; for removal of any anchoring devices; for any bridge deck damage repair.

Delivery and installation of the barrier will be paid for under the pertinent items included in the contract. Barrier moves required to accomplish positioning of the cores and anchors to allow installation of the barrier in its ultimate location will be incidental to this bid item and additional deliveries and installations will not be paid.

59. Cable Type UF 2-14 AWG, Item SPV.0090.3001.

A Description
This work shall consist of furnishing and installing cable for confirmation lights and making all connections as shown on the plans and as hereinafter provided.

B Materials
Section 655 of the Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, latest edition is revised with the following:

Subsection 655.3.4 is supplemented with the following:

When lighting is installed in conjunction with traffic signals, conductors from the traffic signal control cabinet to the confirmation light(s) shall be Cable Type UF, 2 conductor without ground, solid copper conductor, size No. 14.

C Construction
Furnish and install Cable Type UF 2-14 AWG for traffic signals.

D Measurement
Cable Type UF 2-14 AWG shall be measured by the linear foot of cable complete in place.

E Payment
Cable Type UF 2-14 AWG will be paid for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.3001	Cable Type UF 2-14 AWG	LF

Payment shall be full compensation for furnishing and installing cable; for making all connections; for furnishing and installing all connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners, and for testing.

60. Install Camera Power Cable, Item SPV.0090.3002; Install Cat-5e Cable, Item SPV.0090.3003.

A Description
This special provision describes the transporting and installing of state furnished Camera Power Cable, Cat-5e Cable, and Ethernet repeaters.

B Materials
Pick up the state furnished Camera Power Cable, Cat-5e cable, and Ethernet repeaters at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all other necessary materials (connectors including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners) ensuring all materials are in compliance with the WisDOT Qualified Electrical Products List.

C Construction

Install the Cat-5e Cable from the video detection cameras to the cabinet. Provide an extra 6-foot loop of cable in each pull box. Cat-5e Cable runs longer than 300-feet require an Ethernet repeater. Provide an extra 12-foot loop of cable at locations provided by the engineer and install the state furnished Ethernet repeaters per the manufacturer's specifications. Terminate the Ethernet cable ends in the cabinet, at the video detection camera, and at the locations of any required Ethernet repeaters per the manufacturer's specifications. Each run of Ethernet cable must be terminated at both ends. All open field ends shall be taped and covered with a sealant in accordance to standard spec 655.3.1of the standard specifications.

Mark the cabinet end of the Camera Power Cable and Cat-5e Cable appropriately to indicate the equipment label (i.e. V1, V2, etc.) in the traffic signal control cabinet. Neatly coil a minimum of 15-feet of extra cable in the traffic signal cabinet for connection to the traffic signal cabinet equipment by others.

Submit an Ethernet Cable Test Procedure to the department 30 days prior to camera installation. The department will approve the test procedure within 30 days of the date received and provide a written approval.

Resubmit rejected test procedures within 15 days of notification. The department will provide written approval of resubmitted test procedures within 30 days of the date received.

Perform an Ethernet Cable Test conforming to the approved Ethernet Cable Test Procedure on each run of Ethernet cable (cabinet to camera, cabinet to Ethernet repeater, Ethernet repeater to camera). Test the Ethernet cable at a minimum for the following: 1000BASE-T, 100BASE-TX, 10BASE-T, Voice Over IP, Wiremap, Telco, and Length. Submit five copies of the test results to the department for approval. Notify the department of any cable that fails testing. If the Ethernet cable fails testing due to cable terminations, replace the terminations and re-test the cable. If the Ethernet cable fails testing due to the cable itself, re-install any failed Ethernet cable. Re-terminate the ends and re-test any Ethernet cable until it passes all testing procedures.

Connect the Ethernet cables to the video detection cameras and Ethernet repeaters per the manufacturer's specifications once all cable has passed testing. Connect the camera power cable to the video detection cameras. Neatly coil and secure the Ethernet cable and camera power cable in the traffic signal cabinet for connection to the adaptive traffic signal cabinet equipment by others.

Notify department's Electrical field unit at (414) 266-1170 upon installation completion at each intersection.

D Measurement

The department will measure Install Camera Power Cable and Install Cat-5e Cable by the linear foot of cable, 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.0090.3002	Install Camera Power Cable	LS
SPV.0090.3003	Install Cat-5e Cable	LS

Payment is full compensation for transporting and installing the Video Camera Power Cable, Cat-5e Cable, and Ethernet Repeaters; for making all connections; for furnishing and installing all connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners; for terminating, testing, and connecting the Ethernet cables; and for terminating and connecting the camera power cable.

61. Survey Project 2030-14-70, Item SPV.0105.0001.

A Description

This special provision describes modifying standard specs 105.6 and 650 to define the requirements for construction staking for this contract. Conform to sections 105.6 and 650 except as modified in this special provision.

Replace standard spec 105.6.1(2) with the following:

The department will not perform any construction staking for this contract. Obtain engineer's approval before performing all survey required to lay out and construct the work under this contract.

Replace standard spec 650.1 with the following:

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including:

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- bridges
- pavement
- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- freeway and local street lighting
- electrical installations
- supplemental control
- slope stakes
- traffic signals
- ITS
- FTMS
- utilities
- conduit
- traffic control items

B (Vacant)

C Construction

Supplement standard spec 650.3.1 (5) with the following:

Confirm with engineer before using global positioning methods to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb & gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1(6) with the following:

(6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Supplement standard spec 650.3.3.3.6.2 with the following:

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

D Measurement

Replace standard spec 650.4 with the following:

(1) The department will measure Survey Project 2030-14-70 as a separate single lump sum unit acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0001	Survey Project 2030-14-70	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours

of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

sef-650-005 (20171004)

62. Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads IH 94 EB Off Ramp & STH 100, Item SPV.0105.3001.

A Description
This special provision describes the transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads and mounting brackets.

B Materials
Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

C Construction
Install the EVP detector heads as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. Mount the EVP detector heads and wire them per manufacturer instructions. For a cabinet that is not operating the signal, the contractor will terminate the ends and install the discriminators and card rack in the cabinet. If the cabinet is operating the signal, the cabinet wiring will be done by the department

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the Emergency Vehicle Preemption (EVP) Detector Heads.

D Measurement
The department will measure Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads as a single lump sum unit of work in place and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3001	Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads IH 94 EB Off Ramp & STH 100	LS

Payment is full compensation for transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads and mounting brackets.

63. Transport and Install State Furnished Radar Detection System IH 94 EB Off Ramp & STH 100, Item SPV.0105.3002.

A Description
This special provision describes the transporting and installing of department furnished Radar Detection System on monotube poles or arms.

B Materials
Pick up the department furnished Radar System at the department's electrical shop located at 935 South 60th Street, West Allis. Notify the department's electrical field unit (EFU) at (414) 266-1170 to

make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction
Install the department furnished pole/arm mounting brackets, extension arms (if required), and radar units per manufacturer recommendations in the locations determined by the department.

Install the power and communication cable to run continuously (without splices) from the traffic signal cabinet to the pole handhole plus an additional 16-feet in each pull box and an extra 10-feet in the pole handhole. Install the detector unit cable whip from the detector unit to the pole handhole. Splice the detector unit cable whip to the power and communication cable in the pole handhole using the provided junction box.

Mark each end of the lead in the traffic signal cabinet and each cable in the pole handhole to indicate the equipment label (i.e. RA1, RA2, etc.) on the plans. For a cabinet that is not operating the signal, the contractor will terminate the ends. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation and aiming of the radar units.

Notify the department at least five working days prior to the date of programming. Assist the department with fine adjusting of the radar units during the radar system programming, if necessary.

D Measurement
The department will measure Transporting and Installing State Furnished Radar Detection System as a single lump sum unit of work for each intersection 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.0105.3002	Transport and Install State Furnished Radar Detection System IH 94 EB Off Ramp & STH 100	LS

Payment is full compensation for transporting and installing the radar detection system, cable, mounting hardware, and radar units; assisting the department and vendor during the radar system programming.

64. Transport and Install State Furnished Adaptive Traffic Signal Equipment IH 94 EB Off Ramp & STH 100, Item SPV.0105.3003.

A Description
This special provision describes the transporting and installing of department furnished Adaptive Traffic Signal Cameras and mounting hardware.

B Materials

Pick up the department furnished Adaptive Traffic Signal Cameras and mounting hardware at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all other necessary materials (connectors including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners) ensuring all materials are in compliance with the WisDOT Qualified Electrical Products List.

C Construction
Notify the department's Electrical field unit at (414) 266-1170 at least five working days prior to the installation of the cameras.

Contact the department's Electrical field unit at (414) 266-1170 to coordinate the locations of the cameras at least five working days prior to installation. Install the pole/arm mounting bracket, extension arm (if required) and cameras as shown on the plans (the final determination of location will be made by the department's electrical personnel to ensure best line of sight) per manufacturer recommendations.

Assist the department and vendor with aiming and programming the cameras during the adaptive traffic signal turn-on. The department will schedule the adaptive traffic signal turn-on and provide notification a minimum of five working days prior to turn-on.

D Measurement
The department will measure Transport and Install State Furnished Adaptive Traffic Signal Equipment (location) as a single lump sum unit of work for each intersection, 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.0105.3003	Transport and Install State Furnished Adaptive Traffic Signal Equipment IH 94 EB Off Ramp & STH 100	LS

Payment is full compensation for transporting and installing the State Furnished Adaptive Traffic Signal System cameras and mounting hardware; and for assisting the vendor and department with aiming and programming the cameras.

65. Covering Traffic Signal Equipment IH 94 EB Off Ramp & STH 100, Item SPV.0105.3004.

A Description
This special provision describes covering existing permanent traffic signal equipment during construction.

B Materials
Hood materials shall be burlap, canvas, nylon or other materials approved by the engineer and black in color. Plastic trash bags or similar materials are not acceptable. The hood shall cover the entire face of the traffic signal head to the rim of the backplate, if present, and completely cover the pedestrian push button and pedestrian push button sticker and/or sign. The hoods must not damage the existing traffic signal equipment.

The hoods must be securely fastened to the existing traffic signal equipment with nylon rope, straps or other materials approved by the engineer. Tape or similar materials are not acceptable. The straps must not damage the existing traffic signal equipment.

C Construction
Notify the department's Electrical Field Unit at (414) 266-1170 at least five (5) working days prior to the required deactivation of the permanent traffic signal equipment.

Hood the permanent traffic signal heads immediately upon the deactivation of the equipment. Cover the entire face of the signal head to the rim of the backplate and cover the pedestrian push button and pedestrian push button sticker and/or sign with the approved cover materials. Securely fasten the hood to the existing traffic signal equipment with the approved materials. Ensure that the traffic signal indications are not visible.

The hoods must be maintained until the permanent traffic signal equipment is reactivated.

Remove the traffic signal hoods upon project completion.

D Measurement
The department will measure Covering Traffic Signal Equipment (Location), furnished, installed, and completely operational, as a single complete unit of work per intersection, complete in place and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3004	Covering Traffic Signal Equipment IH 94 EB Off Ramp & STH 100	LS

Payment is full compensation for furnishing and installing all required traffic signal hoods, materials, and supplies; for maintaining the traffic signal hoods; for removing the traffic signal hoods; and for cleaning up and properly disposing of waste.

66. Temporary EVP System IH 94 EB Off Ramp & STH 100, Item SPV.0105.3005.

A Description
This special provision describes furnishing, installing, and maintaining temporary EVP systems at the temporary signalized intersection as shown in the plans.

B Materials
Furnish an emergency vehicle preemption system compatible with the City of West Allis and City of Wauwatosa systems and users.

C Construction
The Temporary EVP System, as shown in the temporary traffic signal plans or as directed by the engineer, shall be complete in place, tested, and in full operation during each stage and sub-stage of construction.

Install the temporary EVP system as shown in the plans and according to the manufacturer's recommendations. Determine a suitable location for the temporary EVP detectors for each stage and sub-stage of construction. Detectors may be mounted on the temporary traffic signal span wire or wood poles. Relocate the temporary EVP detectors to a suitable location if construction activities and/or construction staging changes impede the detector operation. Arrange for testing of equipment prior to acceptance of the installation for each construction stage.

All cables associated with the temporary EVP system shall be routed to the cabinet. Each lead shall be appropriately marked as to which EVP channel it is associated.

Periodic adjustment and/or moving of the temporary EVP detectors may be required due to changes in traffic control, staging, or other construction operations.

Ensure that the temporary EVP system stays in clean working order. Periodic cleaning of the equipment may be required due to dirt and dust build-up.

Remove the temporary EVP system upon project completion.

Provide the engineer records of all EVP settings used during construction.

D Measurement
The department will measure Temporary EVP System (Location), furnished, installed, and completely operational, as a single complete unit of work per intersection, complete in place and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3005	Temporary EVP System IH 94 EB Ramps & STH 100	LS

Payment is full compensation for furnishing and installing all required equipment, materials, and supplies; for maintaining and changing the EVP detectors to match the plans, traffic control, and construction staging; for relocating the temporary EVP detectors due to construction activities, if required; for testing the EVP system for each stage and sub-stage of construction; for periodically cleaning all temporary EVP detectors; for removing the temporary EVP system; and for cleaning up and properly disposing of waste.

67. Water for Seeded Areas, Item SPV.0120.0001.

A Description
This special provision describes furnishing, hauling and applying water to seeded areas as directed by the engineer, and as hereinafter provided.

B Materials
When watering seeded areas, use clean water, free of impurities or substances that might injure the seed.

C Construction
If rainfall is not sufficient, keep all seeded areas thoroughly moist by watering or sprinkling. Water for 30 days after seed placement or as the engineer directs. Apply water in a manner to preclude washing or erosion. The topsoil shall not be left un-watered for more than 3 days during this 30-day period unless the engineer determines that it is excessively wet and does not require watering. The equivalent of one inch of rainfall per week shall be considered the minimum.

Apply water in a manner to preclude washing or erosion.

D Measurement
The department will measure Water for Seeded Areas by volume by the thousand gallon units (MGAL), acceptably completed. The department will determine volume by engineer-approved meters or from tanks of known capacity.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0120.0001	Water for Seeded Areas	MGAL

Payment is full compensation for furnishing, hauling, and applying the water.

68. Vibration Monitoring, Item SPV.0135.0001.

A Description

This special provision describes developing a vibration monitoring plan, deploying seismographs for continuous monitoring and recording, documentation, and reporting.

B (Vacant)

C Construction

C.1 General

Vibration Monitoring establishes vibration recordings at the closest affected locations. This spans the entire duration of operations for various vibration inducing activities identified within this special provision unless monitored readings are sufficiently below nuisance limits in Figure 1 and engineer determines that continued monitoring will be at the contractor's discretion.

C.2 Equipment

Use a seismograph meeting the requirements of Wisconsin Department of Safety and Professional Services SPS307.43. Use monitoring equipment with an instantaneous alert notification system that consists of a text message or an e-mail alert message automatically sent directly to the engineer any time the nuisance limits in Figure 1 are exceeded.

C.3 Preconstruction Survey

The engineer will conduct preconstruction surveys of structures that may be potentially affected by vibration before any work. The engineer will visually inspect and record all existing defects in the structures before construction. Photographs or video may be used to assist in documentation.

The contractor may conduct and document pre-construction surveys of any additional nearby buildings or structures not identified by the engineer. Provide results to engineer before construction. Any damage resulting from excessive vibration-causing operations or claims of damage during construction is the responsibility of the contractor to resolve.

C.4 Monitoring Plan

Submit a monitoring plan that includes the following:

- Location of each vibration-inducing activity to be monitored
- Locations at which the approved seismographs will be placed
- Anticipated vibration levels at the closest building(s) or other sensitive facility during the various activities
- Anticipated monitoring duration for each monitoring location
- Maximum allowable vibration limits
- Mitigation plan to reduce potentially excessive vibration levels to acceptable limits.

Obtain the engineer's acceptance seven calendar days before any vibration-inducing activity for the project.

C.5 Monitoring and Recording

Monitor the following operations:

- Bridge and sign bridge pile driving or bridge demolition
- Sheet pile installation and removal

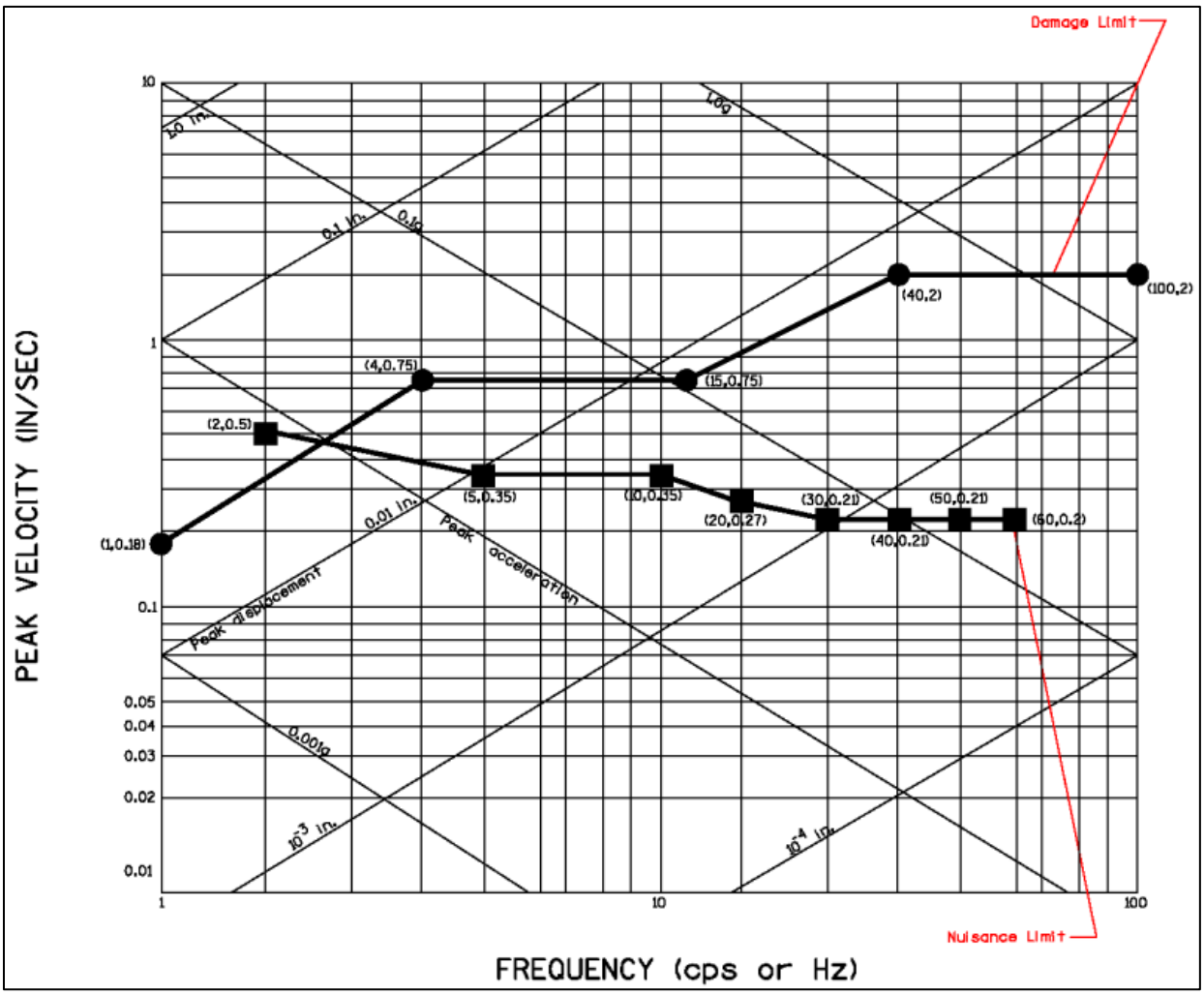
- MSE wall compaction
- Asphalt compaction
- Pavement breaking
- All compaction activities utilizing large vibratory rollers
- Any other activities that may cause vibration damage to adjacent buildings, structures, or utilities.

Ensure that a qualified person operates and continuously monitors the vibration monitoring equipment. If any vibration levels exceed the nuisance levels shown, immediately halt the vibration-inducing work, and notify the engineer.

Monitor between the construction vibration source and the closest structure or other sensitive facility subject to vibration damage, and as close as practical to the subject structure or facility. Monitor vibration levels in accordance with Figure 1 and SPS 307.43.

Compare the measured peak particle velocity and frequency data to the nuisance limits specified in Figure 1. Record peak particle velocity and frequency in three mutually perpendicular directions.

Figure 1: Amplitude of Vertical Vibrations



C.6 Reporting

Furnish a weekly bound report of data recorded at each location to the engineer by 4 PM CST every Friday. Additionally, provide a separate daily report documenting any work that was halted before the next vibration-causing workday. Include the following in both reports:

- Date vibration monitoring operations began for each location with an associated compilation of total days currently monitored at each site.
- Identification of vibration inducing activities monitored each day at each location
- Serial number of vibration monitoring instrument used and record of latest calibration.
- Description of contractor's equipment.
- Name of qualified observer and interpreter.
- Distance and direction of recording station from vibration source.
- Surficial material type at recording station.
- Principal frequency and particle velocity in each component direction.
- Copy of records of seismograph readings, dated and signed by the person qualified to perform vibration monitoring.
- Contractor documentation of any operational changes necessary to reduce vibration levels below nuisance levels.

D Measurement

The department will measure Vibration Monitoring by months, or partial months where applicable, for each seismograph monitoring site 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.0135.0001	Vibration Monitoring	MONTH

Payment of the item Vibration Monitoring is full compensation for providing, setting up and removal of recording unit, an approved vibration monitoring plan, continuous monitoring and recording vibrations, and reporting. No payment for Vibration Monitoring will be made without agreement on recommended locations. Continued monitoring at locations where readings are sufficiently below nuisance limits will be at the contractor's expense.

Any pre-construction surveys of additional nearby buildings or structures not identified by the engineer will be conducted at no additional cost to the department.

sef-999-050 (20170310)

69. Longitudinal Grooving Bridge Deck, Item SPV.0165.4700.

A Description

Provide longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

C Construction

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider, all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than ½-inch wide.

Construct longitudinal grooves with the following criteria:

Width (In)	Depth (In)	Spacing C-C (In)	Width Tolerance (In)	Depth Tolerance (In)	Spacing Tolerance (In)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement

The department will not measure Longitudinal Grooving Bridge Deck. The department will use pay plan quantity according to the Pay Plan Quantity article.

E Payment

The department will pay for plan quantities according to the Pay Plan Quantity article at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.4700	Longitudinal Grooving Bridge Deck	SF

Payment is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

70. Topsoil Special, Item SPV.0180.0200.

A Description

This special provision section describes furnishing, placing, spreading, and finishing humus-bearing soil, adapted to sustain plant life, commonly known as topsoil, from locations the contractor furnishes beyond the limits of the right-of-way.

This special provision also describes removing topsoil from the sites of proposed roadway excavations and embankments in quantities and depths available and necessary to cover the work slopes. This work also includes reclamation, placing, spreading, and finishing of this topsoil.

B Materials

Furnish material that is relatively free from large roots, sticks, weeds, brush, stones, litter, and waste products.

Furnish material, either obtained offsite, or material obtained within project limits, consisting of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life. Do not use surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of NR 40 listed plants and noxious weeds or other undesirable vegetation. Ensure that the material conforms to the following:

Topsoil Requirements	Minimum Range	Maximum Range
Material Passing 2.00 mm (#10) Sieve[1]	90%	100%
PH Range	6.0	7.0
Organic Matter[2]	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand & Gravel	10%	70%

[1] See standard spec 625.3.3 for sieve requirements when using either sod or seed mixture 40.

[2] Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

C Construction

C.1 Preparing the Roadway for Topsoil

Undercut or underfill all areas designated to receive topsoil to a degree that if covered to the required depth with topsoil the finished work conforms to the required lines, grades, slopes and cross sections the plans and drawings show.

C.2 Processing Topsoil

Mow topsoil procurement areas to a height of approximately 6 inches. Remove litter such as brush, rock, and other materials that will interfere with subsequent vegetation establishment.

Strip off the humus-bearing soil. Take care to minimize removing the underlying sterile soil. Then stockpile the topsoil on the right-of-way or place it directly on the designated areas.

Obtain topsoil from embankment areas outside the roadway foundation only if that additional material is required to cover the slopes, and conforms to the requirements of section B in this special provision. Use excess topsoil on the project or dispose of as specified in standard spec 205.3.12.

C.3 Placing Topsoil

After preparing and finishing the areas designated for topsoil to the required lines, grades, slopes and cross section, place and spread the topsoil to a uniform depth as the plans show or the contract requires. If no depth is shown, place and spread the topsoil to a minimum depth of 4 inches in rural areas and a minimum depth of 6 inches in urban areas, or as the engineer designates.

Break down all clods and lumps using appropriate equipment to provide a uniformly textured soil.

Where using either sod or seed mixture 40 ensure that, for the upper 2 inches, 100 percent of the material passes a one-inch sieve and at least 90 percent passes the No. 10 sieve.

Remove rocks, twigs, foreign material, and clods that cannot be broken down. Dress the entire surface to present a uniform appearance. The engineer will not require rolling.

If light sandy soils are covered with heavier clay bearing loam topsoil, then mix or blend the 2 types of soils to a more or less homogeneous mixture by using the appropriate equipment.

D Measurement

The department will measure Topsoil Special acceptably completed by the square yard. The measured quantities shall equal the actual number of square yards of topsoiled area to the depth specified within the limits of construction designated on the plans, or in the contract, or as the engineer directs.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0200	Topsoil Special	SY

Payment for Topsoil Special is full compensation for removing, stockpiling, reclaiming, providing, processing, excavating, loading, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, underfilling embankments, or deductions for materials obtained from areas of cut sections.

If an area is damaged by erosion after partial acceptance, the department will pay for restoring topsoil in these areas at a unit price determined by multiplying the contract unit price bid for Topsoil multiplied by 3, the department will pay for restoration under the Restoration Post Acceptance Topsoil administrative item.

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

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71. Clean Abutment Seats, Item SPV.0180.4750.

A Description

This special provision describes cleaning dirt and debris from existing abutment seats.

B (Vacant)

C Construction

Clean the exposed horizontal surfaces of the abutment seats to remove all accumulated dirt, debris, and loose particles by either brooming and water pressure, or by water and air pressure.

Implement necessary procedures to contain and collect waste materials and to minimize debris dropping onto the surfaces below. Properly dispose of waste materials in a manner satisfactory to the engineer.

D Measurement

The department will measure Clean Abutment Seats by the square yard, 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.0180.4750	Clean Abutment Seats	SY

Payment is full compensation for cleaning abutments seats: containing and collecting the dirt and debris; and for properly disposing of all materials.

72. Management of Solid Waste, Item SPV.0195.0700.

A General

A.1 Description

This work will conform with the requirements of Section 205 of the Standard Specifications; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental

Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil containing semi-volatile organic compounds and metasl will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes including soil mixed with foundry sand. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as petroleum-contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. The nearest WDNR-approved disposal facilities are:

Waste Management Orchard Ridge RDF
W124 N9355 Boundary Rd.
(866) 909-4458

Advanced Disposal Emerald Park Landfill
W124S10629 South 124th Street
Muskego, WI 53150
(414) 529-1360

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor–Solid Waste Locations

The department and others completed hazardous materials assessment for locations within this project where excavation is required. Investigation for soil contamination was conducted at select locations. Results indicate that solid waste (foundry sand and soil contaminated with semi-volatile organic compounds, and/or metals) is present at the following locations as shown on the plans:

1. Station 564+90 to 565+45, from reference line to project limits left, from 0 to 11 feet below grade. Soil excavated from this area will require off-site disposal as solid-waste. The estimated volume of contaminated soil to be excavated at this location is 146 cubic yards (approximately 248 tons using a conversion factor of 1.7 tons per cubic yard).
2. Station 563+90 to 564+90, from reference line to project limits right, from 0 to 14 feet below grade. Soil excavated from this area will require off-site disposal as solid-waste. The estimated volume of contaminated soil to be excavated at this location is 274 cubic yards (approximately 466 tons using a conversion factor of 1.7 tons per cubic yard).
3. Station 564+90 to 566, from reference line to project limits right, from 0 to 15 feet below grade. Soil excavated from this area will require off-site disposal as solid-waste. The estimated volume of contaminated soil to be excavated at this location is 292 cubic yards (approximately 496 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load solid waste soil excavated by the project at the above location into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

No active groundwater monitoring wells were observed within the construction limits. If active groundwater monitoring wells are encountered during construction, notify engineer and protect them to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

If dewatering is required at the above location, conduct the dewatering in accordance with Section C below.

A.3 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, Waukesha, WI 53187-0798
Phone:	262-548-6705
Fax:	262-548-6891
e-mail:	andrew.malsom@dot.state.wi.us

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Contact:	Tyler Stapel
Phone:	262-901-2142
Fax:	262-825-2045
E-mail:	wstapel@trcsolutions.com

The role of the environmental consultant will be limited to:

4. Determining the location and limits of solid waste to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying soils to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the area of solid waste fill described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted area. Notify the environmental consultant at least three

calendar days prior to commencement of excavation in the impacted area. Perform excavation in the impacted area on a continuous basis until excavation work is completed. Do not transport soil containing solid waste offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements
Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter historic fill contaminated with industrial waste (foundry sand) and associated regulated metals and organic compounds. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each impacted area as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction
Subsection 205.3 of the Standard Specification is supplemented with the following:

Control operations in the impacted area to minimize the quantity of soil excavated.

The environmental consultant will periodically monitor soil excavated from the area identified in A.2 above. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul solid waste soil designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

Verify that the vehicles used to transport material are licensed for such activity in accordance with applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the areas of known contamination, larger chunks of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill, to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations, and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in areas of known contamination, water generated from dewatering activities may contain petroleum compounds and/or metals. Such water may require analytical testing, and with approval of the City of West Allis Wastewater Utility be discharged to the sanitary sewer as follows:

1. Meet all applicable requirements of the City of West Allis Wastewater Utility including the control of suspended solids. Perform all necessary monitoring to document compliance with

the City of West Allis Wastewater Utility requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the City of West Allis Wastewater Utility requirements.

2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure solid waste by the ton of waste accepted by the disposal facility and as documented by weight tickets.

E Payment

The department will pay for measured quantities at the contract unit price under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.0700	Management of Solid Waste	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and landfill disposal of solid waste; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.