Special Provisions

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STSP'S Revised July 8, 2021

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 6020-00-70, Deforest – Portage, STH 22/60 Intersection, USH 51, Columbia 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, 2022 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 (20210708)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate dense, concrete pavement, HMA pavement, storm sewer, concrete curb and gutter, permanent signing, pavement marking, street lighting, 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.

Provide the Erosion Control Implementation Plan (ECIP) 14 prior to the Preconstruction Conference.

Schedule of Operations and Construction Staging

Do not park or store any equipment or materials within the clear zone unless approved by the engineer.

Eliminate or protect drop-offs of 2-inches or more within 10 feet or less from the edge of the traveled way before the end of the workday. Compacted material placed to a temporary 3:1 or flatter cross slope from the surface of the pavement edge is acceptable.

Uneven pavement lanes will not be allowed over the weekend. Construct HMA pavement layers to eliminate all uneven lanes before 5:00 PM Friday.

The schedule of operations shall conform to the construction staging as shown in the construction staging plans, unless the engineer approves modifications to the schedule in writing. Staged construction is necessary for construction of STH 22, STH 60, and USH 51 while maintaining traffic flow. The schedule of operations shall conform to the following construction staging described herein:

Stage 1:

Construct the roundabout as shown on the plan and construct temporary widening on USH 51. Detour STH 22 and STH 60.

Stage 2:

Construct northbound USH 51 roundabout approach and westbound USH 51/STH 60 roundabout exit as shown on the plan. STH 22 and STH 60 remain detoured. Traffic on USH 51 shifted to temporary widening. Lighting shall be operational and overhead sign structure S-11-30 installed prior to stage 3.

Stage 3:

Construct southbound USH 51 roundabout exit and eastbound USH 51/STH 60 roundabout approach as shown on the plan. STH 22 will be open to traffic and eastbound STH 60 remain detoured.

Stage 4:

Construct eastbound USH 51/STH 60 shoulder USH 51 southbound shoulder as shown on the plan. Place final lift of HMA pavement for the south leg and west leg of the roundabout. Remove temporary widening and existing USH 51 roadway.

HMA Paving Operations

The contractor shall complete the paving operations of the upper layer of HMA Pavement 4 MT 58-28 H for the roundabout and roundabout legs in a single day's operation during stage 1. No cold joints will be allowed within the following stationing:

STA. 120+00 "EB" – STA. 129+00 "EB"
STA. 120+00 "WB" – STA. 129+00 "WB""
STA. 216+00 "NB" – STA. 225+00 "NB"
STA. 216+00 "SB" – STA. 225+00 "SB"
STA. 20+00 "C" – STA. 23+54 "C"

Prior to allowing motorists into the roundabout, the contractor shall have all lighting constructed in stage 1 or 2 operational.

Northern Long-eared Bat *(Myotis septentrionalis)*

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

In accordance to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

4. Traffic.

A General

Keep STH 22, STH 60, and USH 51 open to traffic at all times except as outlined below during shoulder and single lane closures.

Keep all private entrances and field entrances accessible at all times, unless permission to temporarily close the entrance is obtained from the property owner. Notify the property owner a minimum of 3 days in advance of work that will affect their access.

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.

Maintain emergency vehicle access to all properties at all times.

B Traffic Control Devices

Place roadway signing as detailed on the plans and in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Place traffic control completely by the end of the working day of a traffic staging switch.

Prior to any traffic control being placed, provide the engineer and the Columbia County Sheriff's Department, Village of Arlington Fire Department, and Village of Arlington Police Department, with the name and telephone number of a local person responsible for the emergency maintenance of traffic control.

Place roadway signing as detailed on the plans and in conformance to the Manual of Uniform Traffic Control Devices (MUTCD). Stationary Road Work 500 FT, Road Work 1000 FT and Road Work Ahead signs shall be equipped with a flashing beacon.

Equip all contractor-owned construction vehicles and equipment, including workers' vehicles working for the contractor, with at least one flashing amber light. The flashing amber light shall be activated when vehicles or equipment are operated in, parked in close proximity to, or when entering and exiting live lanes of traffic. The flashing amber light shall be placed at a location that provides visibility from all directions. The light shall be of the flashing strobe or revolving type meeting the following requirements:

Flashing Strobe Type Light	Revolving Type Light
360-degree lens	360-degree lens
60 to 90 flashes/min	45 to 90 flashes/min
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum diameter	3-3/4 inch minimum diameter

The light shall be equipped with bulbs of 50 candlepower minimum. Mount the flashing amber light approximately midway between the transverse extremities of the vehicle or machinery and at the highest practicable point. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to the contractor owned equipment, vehicles, or worker vehicles, will be provided for in the contract.

Provide PCMS message boards as shown on the plan.

C Shoulder and Lane Closures

All lane closures are subject to the approval of the region traffic engineer. Times listed for lane closure restrictions include setup and breakdown of any equipment and traffic control devices.

LANE/SHOULDER CLOSURES

STH 22 Closures Stages 1-2
Continuous traffic detour

STH 60 Closures Stages 1-2
Continuous traffic detour

USH 51/STH 60 Eastbound Stage 3
Continuous traffic detour

USH 51 Closures Stages 1-4
Shoulder Closure Allowed: 8:00AM – 3:00PM daily; Monday AM – Friday AM
Shoulder Closure Allowed: 7:00PM – 5:00AM nightly; Sunday PM – Friday AM
Lane closure with flagging operation allowed during shoulder closure. 15-minute delay maximum. Engineer may suspend working operations and adjust flagging operation allowed hours if delays exceed 15-minutes.

All lane and shoulder closures shall be removed when work is not in progress.

Removals and material delivery shall not impede with traffic flow as determined by the engineer. Removals and material delivery may need to occur during off-peak hours in order to complete the work.

D Detours

Detour traffic for the closure of STH 22 and STH 60 for stages 1, 2, and 3 as shown in the plans. Install required traffic control and detour signs as shown on the plans prior to the closure and remove after completion of the work. Do not reveal advance warning signs and detour signs until the detour is in effect.

Provide the name and phone number of a 24-hour contact person if problems occur with the detour signing and barricades.

Prior to establishing the detour route for Stage 1, the contractor shall perform a drive thru of the detour route on CTH K, CTH C and CTH Q. Observe and record the condition of lanes and shoulders with a video camera for documentation of pre-existing conditions prior to detouring traffic. Provide a copy of the recorded observations to the engineer.

Immediately after removing the detour route, the contractor shall perform a second drive thru of CTH K, CTH C and CTH Q with the engineer. Observe and record the condition of lanes and shoulders with a video camera for documentation of conditions as a result of detoured traffic. Provide a copy of the recorded observations to the engineer.

E Traffic Staging

Maintain traffic as shown on the plans and as briefly described below.

Stage 1:
STH 22: Closed to thru traffic.
STH 60: Closed to thru traffic.
USH 51: Maintain traffic at existing location and utilize shoulder and Lane closures.

Stage 2:
STH 22: Closed to thru traffic.
STH 60: Closed to thru traffic.
USH 51: Shift traffic onto temporary pavement.

Stage 3:
STH 22: Shift traffic into roundabout.
STH 60: Shift westbound traffic into roundabout. Eastbound traffic utilizes detour.
USH 51: Maintain eastbound traffic at existing location. Southbound traffic from roundabout utilize existing stop sign at USH 51 intersection. Shift northbound traffic into roundabout.

Stage 4:
STH 22: Maintain southbound traffic at existing location.
STH 60: Maintain westbound traffic at existing location. Shift eastbound traffic into roundabout.
USH 51: Maintain northbound and westbound traffic at existing location. Shift southbound and eastbound traffic to permanent pavement.

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 feet)	**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 feet)	**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.

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 60, USH 51, STH 22 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 and special event periods:

- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day Weekend;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 Independence Day Weekend;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 Labor Day Weekend.

stp-107-005 (20210113)

6. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.

stp-107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work being completed, and the site will be available to the utility owner. Follow-up with a confirmation notice to the engineer and the utility owner three to five working days before the site will be ready for the utility owner to begin its work.

Additional detailed information regarding the location of vacated, relocated, and/or removed utility facilities is available in the work plan provided by each utility company or on the permits issued to them. View these documents at the region WisDOT office during normal working hours.

All station locations that are referenced are approximate locations. All depths referenced are approximate depths.

Utility information to be updated post PS&E

7. 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 10:00 PM until the following 6:00 AM, unless prior written approval is obtained from the engineer.

stp-107-001 (20060512)

8. Archaeological Site.

Greenwood Cemetery site is located approximately 208+00 “NB” – 214+00 “NB” RT within the limits shown on the plans.

A 157.70 burial authorization has been obtained to work within the boundaries of the cemetery. Notify the Bureau of Technical Services – Environmental Process and Document Section (BTS-EPDS) at (608) 266-0099 at least two weeks before commencement of any ground disturbing activities. BTS-EPDS will determine if a qualified archaeologist will need to be on site during construction of this area.

Do not use the site for borrow or waste disposal. Do not use the site area not currently capped by asphalt/concrete for the staging of personnel, equipment and/or supplies.

stp-107-220 (20180628)

9. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Marc Schweiger at (608) 245-2633. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

10. Notice to Contractor – Lighting and Overhead Sign Structure.

Prior to opening the roundabout to through traffic in stage 3, all lighting must be operational, and the overhead sign structure S-11-30 must be installed.

11. Notice to Contractor – Other Contracts (Project ID 1012-01-74).

Project 1012-01-74, STH 60/IH-90/94 interchange project is expected to be constructed in 2022. Contact Marc Schweiger at (608) 245-2633 to coordinate the project and to resolve any potential traffic control conflicts between Project ID 6020-00-70 and Project ID 1012-01-74.

12. Notice to Contractor – Other Contracts (Razing).

The garage on parcel 8, sheds on parcel 4, and garage and septic on the SW quadrant of STH 22 and STH 60 will be removed under a separate razing contract. These removals are expected to take place October 2020. Coordinate with the Department and the Razing Contractor. For more information contact Teri Weil at teri@tva-llc.com.

13. Notice to Contractor – Stop Sign with Flashing Beacon.

A stop sign with a flashing beacon was installed at the intersection of STH 22 and STH 60 for eastbound STH 60 traffic at the time of PS&E. The stop sign is property of the Department and will be removed by the Department. Contact Jeff Holloway one week prior to needing the sign removed at 608-516-6437 or Jeffrey.holloway@dot.wi.gov.

14. QMP HMA Pavement Nuclear Density.

A Description

Replace standard spec 460.3.3.2 (1) and standard spec 460.3.3.2 (4) with the following:

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

https://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf

(4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

http://www.atwoodsystems.com/

B Materials

B.1 Personnel

(1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 8-15.

B.2 Testing

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Conform to CMM 8-15.10.4 for test duration and gauge placement.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges according to CMM 8-15.2.

(2) Furnish nuclear gauges from the department's approved product list at

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

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

(1) Compare QC and QV nuclear gauges according to CMM 8-15.7.

B.3.2.2 Comparison Monitoring

(1) Conduct reference site monitoring for both QC and QV gauges according to CMM 8-15.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.

(2) Determine required number of tests according to CMM 8-15.10.2.1.

(3) Determine random testing locations according to CMM 8-15.10.3.

B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.

(2) Determine required number of tests according to CMM 8-15.10.2.2.

(3) Determine random testing locations according to CMM 8-15.10.3.

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

(1) Calculate the average sublot densities using the individual test results in each sublot.

(2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

(3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay as specified in standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.2.2 Width of 5 Feet or Less

(1) If all sublot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.

(2) If a sublot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.4 Documentation

(1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

(1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.

(2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted sublot. Testing in a previously accepted sublot will not be used to recalculate a new lot density.

(3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full sublot width within the traffic lanes or shoulders.

(4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.

(5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the sublot and lot densities.

(6) If two consecutive sublot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

(1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one sublot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.

(2) The QV tester will test each selected sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft^3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft^3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft^3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft^3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

(1) 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.

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.

(2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV sublot density test results or retesting of the sublot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

(1) The department will not accept QMP HMA Pavement Nuclear Density if a non-compared gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to 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.

E.2 Disincentive for HMA Pavement Density

(1) The department will administer density disincentives as specified in standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

(1) The department will administer density incentives as specified in standard spec 460.5.2.3.

stp-460-020 (20181119)

15. Base Aggregate Dense 3/4-Inch, Item 305.0110.

Add the following to standard spec 301.2.4.3:

Furnish only aggregate classified as crushed stone for Dense 3/4-Inch when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

swr-305-001 (20170711)

16. Base Aggregate Dense 1 1/4-Inch, Item 305.0120.

Add the following to standard spec 305.2.2.1:

When 1 1/4-Inch base aggregate is >/= 50 percent crushed gravel, conform to the following gradation requirements:

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 - 100
1 inch	---
3/4 inch	70 - 90
3/8 inch	45 - 75
No. 4	30 - 60
No. 10	20 - 40
No. 40	7 - 25
No. 200	3 - 10[1]

[1] Limited to a maximum of 8.0 percent for base placed between old and new pavement.

swr-305-002 (20170711)

17. Locating No-Passing Zones, Item 648.0100

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).

stp-648-005 (20060512)

18. Research and Locate Existing Land Parcel Monuments, Item SPV.0060.01.

A Description

This special provision describes researching and locating existing land parcel or boundary monuments located in permanent easements, temporary easements, or construction permit areas, which may be lost or disturbed by construction operations.

This provision does not relinquish the contractor's responsibility of standard spec 107.11.

B (Vacant)

C Construction

Perform work by, or under the direction of, a professional land surveyor licensed in the State of Wisconsin.

Before construction, research, locate and document monuments located in permanent easements, temporary easements, and construction permit areas. Establish coordinate ties to the monuments accurate to current minimum state survey standards.

Prepare a monument location map showing the type of monuments found and their coordinates. The transportation project plat (TPP) is acceptable as a base map for the monument location map. Provide a copy of the monument location map to the engineer and region right-of-way plat coordinator.

Verify and reset monument locations after construction is complete under the item titled "Verify and Replace Existing Land Parcel Monuments."

D Measurement

The department will measure Research and Locate Existing Land Parcel Monuments as each individual monument 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.0060.01	Research and Locate Existing Land Parcel Monuments	EACH

Payment is full compensation for all research, field survey, locating, and data recording necessary to locate and establish coordinates for existing monuments within the construction limits before construction; furnishing a professional land surveyor; preparing, annotating and delivering the monument location map.

swr-621-005 (20170310)

19. Tree Root Cutting and Removal, Item SPV.0060.02.

A Description

This special provision describes cutting and removal of tree roots along the edge of the proposed sidewalk or driveways at the locations shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Remove existing tree roots 5 inches out from back edge of the new sidewalk. The tree roots shall be pruned by hand and removed not deeper than 9 inches below finished grade of new sidewalks when adjacent to sidewalk and not deeper than 13 inches below finished grade of new driveways when adjacent to driveways. If approved by the engineer, a mechanical root cutting machine designed for such purpose may be used to cut the roots. Backhoes, skid steers, and endloaders are not acceptable.

Exposed tree roots shall be immediately covered with mulch and kept moist until backfilling is completed.

Backfill the area after removal of the roots according to the pertinent provisions of standard spec 207.

Dispose of the tree roots according to standard spec 201. Burning or burying of the roots will not be permitted.

D Measurement

The department will measure Tree Root Cutting and Removal on a per each unit basis, regardless of size of tree, acceptably completed. One unit will consist of cutting and removing all tree roots at a specific tree location along one side of sidewalk or driveway. When a tree is located near multiple sidewalks and driveways and the roots are cut and removed on two or more sides of the tree, then each side that is cut and removed will be counted and totaled per tree.

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.0060.02	Tree Root Cutting and Removal	EACH

Payment is full compensation for pruning and cutting tree roots; removal and disposal of roots; furnishing and covering the roots with mulch; watering and maintaining the mulch in moist conditions; and backfilling.

20. Verify and Replace Existing Land Parcel Monuments, Item SPV.0060.03.

A Description

This special provision describes verifying the final location of, and replacing existing land parcel or boundary monuments, previously located under the item "Research and Locate Existing Land Parcel Monuments", that are lost or disturbed by construction operations.

This provision does not relinquish the contractor’s responsibility of standard spec 107.11.

B Materials

Provide minimum sized replacement monuments as follows:

- Locations outside of pavement areas:
  - 1-inch inside diameter by 24-inch long iron pipe
  - 3/4-inch diameter by 24-inch long rod or rebar
- Locations in asphalt pavement areas:
  - Survey spike
  - Mag nail
- Locations in concrete pavement areas:
  - Drilled hole
  - Chiseled mark

C Construction

Perform work by, or under the direction of, a professional land surveyor licensed in the State of Wisconsin.

After construction is completed, verify the location of all monuments previously located with the item "Research and Locate Existing Land Parcel Monuments". Replace any monuments that were disturbed or destroyed to current minimum state survey standards.

Prepare a monument location map showing the type of monuments originally found, the type of replacement monuments used to replace the disturbed or destroyed monuments, and monument coordinates. The transportation project plat (TPP) is acceptable as a base map for the monument location map. Create the location map with a PDF editing tool such as Adobe or Bluebeam. The monument location map shall explicitly state that the replaced monuments are not being certified as actual land parcel or boundary monuments, only that evidence of monuments were found and replaced. Attach a cover letter to the location map that contains a brief synopsis of the work completed. The cover letter shall be signed, stamped, and dated by a professional land surveyor. Provide a copy of the monument location map and cover letter to the engineer, the county surveyor, and the region plat coordinator.

D Measurement

The department will measure Verify and Replace Existing Land Parcel Monuments as each individual monument 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.0060.03	Verify and Replace Existing Land Parcel Monuments	EACH

Payment is full compensation for all survey work necessary to verify the location of all monuments previously located under the item "Research and Locate Existing Land Parcel Monuments"; replacing monuments that were disturbed or destroyed from their original location; furnishing monuments or other necessary tools; furnishing a professional land surveyor; preparing, annotating and delivering the monument location map and cover letter.

swr-621-003 (20160810)

21. Verify Landmark Reference Monuments, Item SPV.0060.04.

A Description

This special provision describes verifying, restoring, and preserving reference (witness) monuments for existing U.S. public land survey corners.

B Materials

Provide reference monument materials that satisfy Wisconsin Administrative Code Chapter A-E 7.07. The Department will furnish aluminum monument caps if requested.

C Construction

Complete work under the direction of a Registered Land Surveyor in the state of Wisconsin, in accordance with the pertinent requirements of standard spec 621.3 and as follows.

Obtain existing tie sheets from the county surveyor. Locate and verify existing U.S. public land survey corner monuments and reference ties to at least 4 reference monuments. Restore or reestablish missing or damaged reference monuments.

If required, install temporary reference monuments for construction. Provide a temporary tie sheet to the Department and the county surveyor for use by the public during the construction phase of the project and before final monumentation is complete.

Prepare and file final U.S. public land survey monument records in accordance with the Wisconsin Administrative Code Chapter A-E 7.08. Provide a copy to the WisDOT SW Region Madison Survey Coordinator.

D Measurement

The department will measure Verify Landmark Reference Monuments by each U.S. public land survey corner acceptably verified, tied, and preserved.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Verify Landmark Reference Monuments	EACH

Payment is full compensation for obtaining existing tie sheets; for locating and preserving corner monuments; for locating, verifying, restoring, and preserving reference monuments; for providing reference monument materials; for temporary reference monuments; and for preparing and filing final monument records.

Restoring or reestablishing missing or damaged survey corners will be considered extra work. Replacing survey corners damaged due to construction operations is incidental to the contract.

swr-621-004 (20180409)

22. Pipe Underdrain (6-Inch) with Geotextile Fabric and Aggregate, Item SPV.0090.01.

A Description

This special provision describes providing and placing pipe underdrain, geotextile fabric, and aggregate as shown on the plans and hereinafter provided. The work under this item shall be in accordance with the standard specifications for each component.

B Materials

B.1 Pipe

Provide Pipe Underdrain 6-Inch conforming to the pertinent requirements of section 612.2 of the standard specifications.

B.2 Geotextile Fabric

Provide Geotextile Fabric Type DF Schedule B conforming to the pertinent requirements of section 645.2.1 and 645.2.4 of the standard specifications.

B.3 Aggregate

Provide coarse aggregate size No. 1 conforming to the pertinent requirements of section 501.2.5.4 of the standard specifications.

C Construction

Construct the Pipe Underdrain (6-Inch) with Geotextile Fabric and Aggregate as the plans show and conforming to standard spec 612.3.1, 612.3.3, 612.3.5, and 645.3.4.

D Measurement

The department will measure Pipe Underdrain (6-Inch) with Geotextile Fabric and Aggregate by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Pipe Underdrain (6-Inch) with Geotextile Fabric and Aggregate	LF

Payment is full compensation for providing and placing all materials, including pipe underdrain, geotextile fabric, aggregate, backfill, connections, fittings, and caps or plugs; and for all excavating, recompacting, disposing of surplus material, and restoring the work site.

swr-612-001 (20160205)