From: Saxby, Chris A
To: Arneson, Wendy - DOT
Cc: Fechhelm, George - DOT; Hein, Mike
Subject: ID 6300-00-73 STH 22 Special Provisions
Date: Wednesday, October 02, 2019 1:40:58 PM
Attachments: image001.png

Wendy
I have uploaded the draft special provisions for STH 22 to the box. Below are my comments on this set of specials.

1. I did not include **STSP NCR 601-015** for concrete curb and gutter in the draft. Does NCR use this spec whenever installing concrete curb and gutter or is this meant for special dimension curb & gutter? If so, what is the difference between the STSP and regular spec? We will add this spec to the specials if necessary.
2. **Utilities** section was written in the context of using it for 1078 submittal. The language will be updated as necessary after receiving 1078s from the utilities.
3. **Archaeological Site** for site 47WP335-BWP-0177 will be updated pending any response from the Region regarding communication with the CRT per my email on 10/1/2019.
4. **Base Aggregate** is currently included. Can be removed if Region does not want it.
5. **Protecting Concrete** is currently included. Can be removed if Region does not want it. It is not needed for curb and gutter work at rural intersections but may be needed for handicap ramp areas. The handicap ramps are not in a heavy urban setting, more rural.
6. **Asphaltic Surface** is for the path patches near the handicap ramp installations. Does the Region care if we use MT or LT pavement? Or just use regular spec for Asphaltic Surface and delete this STSP?
7. **Traffic Control** I added STSP NCR 643-005. I am not sure this is necessary. Can remove if needed.
8. **Locating No Passing Zone** I need Region to tell me which distance to use from the pull down.
9. **Reheating HMA Pavement Longitudinal Joints** Is this used on mill & overlay jobs?
10. **Reestablish Section Corner Monuments** there are 5 existing section corner monuments within the pavement and 1 very close to the gravel shoulder within the project limits. I assumed milling operation will grind off the monuments (survey marking pin). I put this in to reestablish them.

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Special Provisions

Table of Contents

STSP'S Revised June 18, 2019

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 6300-00-73, STH 22, Wautoma – Waupaca, Portage/Waupaca County Line to USH 10, Waupaca, 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, 2020 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 (20190618)

2. Scope of Work.

The work under this contract shall consist of removing asphaltic surface butt joints, removing asphaltic surface milling, removing curb and gutter, base aggregate dense, HMA pavement 4 MT 58-28 S, asphaltic surface, asphaltic surface driveways and field entrances, concrete curb and gutter, concrete sidewalk, erosion control, pavement marking, traffic control, finishing items 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.

Complete construction between Western Avenue and USH 10 prior to August 7, 2020 or begin construction between Western Avenue and USH 10 after August 17, 2020. Keep STH 22 between Western Avenue and USH 10 free of obstacles from August 14, 220 to August 17, 2020 for the Waupaca Area Triathlon.

Place the lower layer of asphaltic pavements on sideroads before the upper surface layer of asphaltic pavements are placed on the mainline adjacent to the sideroad.

Place the upper surface layer of asphaltic pavement on the sideroads within seven (7) calendar days after the upper surface layer of asphaltic pavement is placed on the mainline.

ncr-108-010 (20131005)

4. Traffic.

Keep STH 22 and side roads open to traffic at all times for milling and paving operations. During daylight construction hours, close up to one lane of traffic, as necessary, with standard flagging operation. Maximum lane closure length is 1.5 miles without approval of the engineer. Keep traffic queues and delays minimized during the flagging operation. During non-working hours open STH 22 and side roads to two lanes of traffic, one in each direction.

Use shoulder closure details as necessary for concrete curb and gutter replacement and handicap ramp construction. Utilize standard flagging operation when necessary during daylight construction hours for concrete curb and gutter and handicap ramp construction activities.

Keep STH 22 open to traffic at all times while replacing cross culverts. During daylight construction hours, close up to one lane of traffic, as necessary, with standard flagging operation. Maximum lane closure length is 1.5 miles without approval of the engineer. Keep traffic queues and delays minimized during the flagging operation. If installation or cross culvert takes more than one construction day, during

non-working hours open STH 22 to two lanes of traffic by installing base course up to the grade of existing asphalt and install traffic control as detailed in the plan.

Provide safe slopes during night time and weekend hours and keep clear zone clear of all obstacles.

Maintain access to businesses, schools and property owners during construction.

Provide 48 hours notice to the engineer of any changes in traffic control set ups or proposed modifications.

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.

5. Public Convenience and Safetey.

Replace standard spec 107.8 (4) with the following:

Notify the following organizations and departments at least 2 business days before road closures, lane closures, or detours are put into effect:

Waupaca County Sheriff's Department
Wisconsin State Patrol
Town of Dayton
Town of Farmington
Town of Waupaca
City of Waupaca
Waupaca School District
Waupaca Post Office

The Waupaca County Sheriff's Department 911 dispatches all area police, fire and ambulance services, and will relay any notification given by the contractor.

ncr-107-005 (20141015)

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying 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 periods:

- From noon Friday, May 22 to 6:00 AM Tuesday, May 26 Memorial Day;
- From noon Thursday, July 2 to 6:00 AM Monday, July 6 Fourth of July;
- From noon Friday, September 4 to 6:00 AM Tuesday, September 8 Labor Day.

stp-107-005 (20181119)

7. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained a US Army Corps of Engineers Section 404 Permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the region office by contacting Wendy Arneson at (715) 421-7391. Methods of operations, including preparatory work, staging, site clean-up or storing materials, causing impacts to other wetlands or waters are not permitted.

If the contractor chooses a method of construction that is not covered by the department's 404 Permit, obtain the proper additional permits required from the US Army Corps of Engineers. It is the contractor's responsibility to determine if additional permits are required. Obtain the additional permits prior to beginning construction operations requiring the permits. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the additional permits. The contractor must be aware that the US Army Corps of Engineers may not grant the additional permits.

ncr-107-035 (20141015)

8. Utilities.

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

stp-107-065 (20080501)

Adams-Columbia Electric Cooperative (ACEC) has both overhead and underground electric facilities along the north and south side of STH 22 with various crossings from the Portage/Waupaca County line to just north of Stratton Lake Road at approximately station 316+00.

No conflicts are anticipated.

AT&T Wisconsin (AT&T) has underground communication facilities on both sides of STH 22 with varios crossings from Testin Road to Dayton Road, from Stratton Lake Road to CTH QQ and from CTHK/King Road to USH 10. They also have crossings near station 467+00, at CTH K/King Road and near USH 10.

The underground communication facility on the west side of STH 22 appears to be within the construction limits of the culvert replacement at station 342+49. It is unknown if the underground facility is above or below the existing culvert pipe.

This facility may or may not be in conflict.

The underground communication facility that crosses Cleghorn Road appears to be outside of the construction limits of the culvert replacement at station 342+49.

No conflict is anticipated.

Century Link (CL) has underground communication facilities near the right of way on both the north and south side of STH 22 from the Portage/Waupaca County line to just east of West Road. There is one crossing in this section at approximately station 15+00.

No conflicts are anticipated.

Charter Communications (Charter) has underground communication facilities along the east/south side of STH 22 from Suhs Road to USH 10.

The underground communication facility on the east side of STH 22 appears to be outside of the construction limits of the culvert replacement at station 342+49.

The underground communication facility that crosses Cleghorn Road appears to be outside of the construction limits of the culvert replacement at station 342+49.

The underground communication facility on the south side of STH 22 appears to be outside of the construction limits of the culvert replacement at station 486+75.

The underground communication facility on the south side of STH 22 appears to be outside of the construction limits of the culvert replacement at station 501+10.

No conflicts are anticipated.

Waupaca Chain of Lakes Sanitary District #1 (WCLS) has an underground 12inch force main facility located on the north side of STH 22 from approximately station 443+30 to USH 10.

The underground force main facility crosses over the culvert pipe being replaced at station 486+75 and is within the construction limits of the culvert replacement.

The force main is in conflict at this location.

The underground force main facility appears to be outside of the construction limits of the culvert replacement at station 501+10.

No conflict is anticipated.

WE Energies (WE) has underground gas facilities on the north side of STH 22 between, W Stratton Road and Speer Road, along the west side of STH 22 from Stratton Lake Road to Cleghorn Road and crossings at the intersections of STH 22 with Cleghorn Road, CTH QQ, CTH K/King Road and Western Avenue.

The underground gas facility crossing at Cleghorn Road appears to be outside of the construction limits of the culvert replacement at station 342+49.

No conflicts are anticipated.

Wisconsin Public Service Corporation (WPSC) has underground electric facilities that parallel and cross STH 22 near the intersections of STH 22 with Rural Road, Cleghorn Road, CTH QQ, CTH K, Western Avenue and a crossing at approximately station 467+00.

The underground electric facility crossing Cleghorn Road appears to be outside of the construction limits of the culvert replacement at station 342+49.

No conflicts are anticipated.

9. Erosion Control.

Add the following to standard spec 107.20:

Perform construction operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and finishing to minimize the period of exposure to erosion.

Replace topsoil on disturbed areas, including spot locations such as cross drains, driveways, guardrail and terminals, and intersections, immediately after grading is completed within those areas. Complete finishing operations, which includes seed, fertilizer, erosion mat, mulch, and any other permanent erosion control measures required, within seven (7) calendar days after the placement of topsoil.

ncr-107-050 (20141015)

10. Archaeological Site.

47WP335/BWP-0177 (Rural Miner Mound) site is located approximately 373+00 to 393+00 LT & RT within the limits shown on the plans.

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 beyond the existing backslope intercept. 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.

47WP68 (Potts) site is located approximately 329+00 to 334+00 LT within the limits shown on the plans.

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 beyond the existing backslope intercept. 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.

47WP277 (P. Pope 3) site is located approximately 417+00 to 445+00 within the limits shown on the plans.

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 beyond the

existing right-of-way limits. 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.

47WP171 (unnamed site) site is located approximately 325+00 to 334+00 RT within the limits shown on the plans.

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 beyond the existing right-of-way limits. 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)

11. Base Aggregate Dense.

Revise standard spec table 301-2 to increase the fracture to be minimum of two face by count.

ncr-305-005 (20150908)

12. Protecting Concrete.

Add the following to standard spec 415.3.14:

Provide a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. The finisher shall actively and continuously patrol the newly placed concrete, and repair any damage to the surface that might be sustained as described above.

The cost for providing the finisher(s), necessary equipment, and materials shall be considered incidental to the contract unit price for each concrete item.

ncr-415-005 (20141015)

13. 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.

http://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

http://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 2 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)

14. Asphaltic Surface.

Replace standard spec 465.2 (1) with the following:

Under the Asphaltic Surface bid item submit a mix design. Furnish asphaltic mixture meeting the requirements specified for HMA Pavement Type ***select type*** under standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program specified under standard spec 460.2.8.

ncr-465-005 (20160401)

15. Pipe Culverts.

Replace standard spec 520.3.3(5) with the following:

Provide joint ties at all joints of circular or horizontal elliptical concrete culvert pipes and concrete cattle pass installations, including endwalls. Ties are not required between culverts and concrete masonry endwalls unless shown on plan.

ncr-520-005 (20180319)

16. Landmark Reference Monuments.

This work shall be competed according to standard spec 621 and the plan details, except as provided in this special provision.

Add the following to standard spec 621.1:

The survey work required to tie out the landmark shall be performed by, or under the direction of, a professional land surveyor. Upon completion of the work, provide the survey notes and the County

specified tie sheets to the County Surveyor and the Project Engineer. Obtain an example of the specified tie sheets from the County Surveyor.

Add the following to standard spec 621.3.1:

Provide four reference monuments for each landmark. Utilize existing concrete or drive-in reference monuments that are outside the construction limits when possible. Existing reference monuments that can be used will not be considered for payment.

Replace standard spec 621.3.2.1 (1) with the following:

Under the Landmark Reference Monuments bid item, install 30-inch stainless steel drive-in monuments with cap stamped as shown on plan details.

Add the following to standard spec 621.3.3:

Protect the reference monuments until construction is completed. Any monuments that are shifted or damaged during construction shall either be replaced or reset, as directed by the engineer, by a professional land surveyor at the contractor's expense.

Replace standard spec 621.5 (2) with the following:

Payment for Landmark Reference Monuments is full compensation for furnishing, placing, and protecting drive-in and existing monuments; for furnishing a professional land surveyor; for performing survey work; for replacing or resetting monuments if necessary; for preparing and delivering survey notes and tie sheets.

ncr-621-005 (20150127)

17. Seeding.

Replace standard spec 630.3.3(1) with the following:

Sow seeds by method A only.

ncr-630-005 (20141015)

18. Seeding Temporary.

Add the following to standard spec 630.3.3:

Apply Seeding Temporary separately from the application of other seed mixtures to ensure uniform application rates due to the varying seed sizes.

ncr-630-010 (20141015)

19. Field Facilities.

Add the following to standard spec 642.3:

Set up the field office within seven days after notice from the project engineer.

Provide a parking area large enough to park a minimum of six cars directly adjacent to the field office. The parking area and approach to the field office shall be well drained and consist of a crushed base aggregate or an existing paved surface and shall be ready for use within seven days after the field office is set up.

ncr-642-005 (20160406)

20. Traffic Control.

Add the following to standard spec 643.3.1:

Provide the engineer and law enforcement (police, sheriff and State Patrol) the current telephone number(s) that the contractor, or their representative, can be contacted at, at all times, in the event a safety hazard develops. Repair, replace, or restore the damaged or disturbed traffic control devices within two hours from the time notified or made aware of the damaged or disturbed traffic control devices.

Promptly replace all state-owned signs that are removed by the contractor due to interference with construction operations. At no time may stop signs be removed or moved without flag persons present.

Add the following to standard spec 104.6.1.2.2:

Provide a dedicated person or alternate method to guide traffic travelling alongside or near moving operations such as milling, paving, and shouldering.

ncr-643-005 (20190703)

21. Reheating HMA Pavement Longitudinal Joints, Item 460.4110.S.

A Description

This special provision describes reheating the abutting edge of the previously compacted layer in the adjacent lane while paving mainline asphalt pavements.

B (Vacant)

C Construction

C.1 Equipment

Provide a self-contained heating unit that heats by convection only. Do not use forced air to enhance the flame. Provide a fireproof barrier between the flame and the heater's fuel source. The heater must produce a uniform distribution of heat within the heat box. Provide automatic controls to regulate the heater output and shutoff the heater when the paver stops or the heater control system loses power.

Mount the heater on the paver inside the paver's automatic leveling device.

C.2 Reheating Joints

Evenly reheat at least an 8 inch (200 mm) wide strip of the previously compacted layer in the adjacent lane as follows:

- Reheat the joint to within 60 degrees F (15 degrees C) of the mix temperature at the paver auger. Measure joint temperature immediately behind the heater.

The engineer may allow the required joint reheat temperatures to be cooler than specified to adjust for weather, wind, and other field conditions. Coordinate the heater output and paver speed to achieve the required joint reheat temperature without visible smoke emission.

D Measurement

The department will measure Reheating HMA Pavement Longitudinal Joints by the linear foot acceptably completed as measured along each joint for each layer of asphalt placed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF

Payment is full compensation for all the work required under this bid item.

stp-460-015 (20140630)

22. Insulation Board Polystyrene, 2-Inch, Item 612.0902.S.

A Description

This special provision describes furnishing and placing polystyrene insulation board as the plans show.

B Materials

Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230 as modified in this special provision.

Delete flammability requirement.

B.1 Certification

Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the project engineer.

C (Vacant)

D Measurement

The department will measure Insulation Board Polystyrene (size) by area in square yards of work completed 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
612.0902.S	Insulation Board Polystyrene 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.

stp-612-005 (20030820)

23. Temporary Portable Rumble Strips, Item 643.0310.S.

A Description

This special provision describes providing, relocating, maintaining, and removing temporary portable rumble strips.

B Materials

Furnish RoadQuake2 or Roadquake2F temporary portable rumble strips, by Plastic Safety Systems. Do not use alternate products or methods without preapproval by the Bureau of Traffic Operations.

C Construction

C.1 Placement

Provide rumble strips where the plans show or the engineer directs as follows:

1. Before placing rumble strips, clean the roadway of sand and other materials that may cause slippage.
2. Place one end of the rumble strips 6 inches from the roadway centerline. Extend the strips perpendicular to the direction of travel. Ensure strips lay flat on the roadway surface.
3. Only one series of rumble strips, placed before the first work zone, is required per direction of travel for multiple work zones spaced 1 mile or less apart. Work zones spaced greater than 1 mile apart require a separate series of rumble strips.

C.2 Maintenance

Maintain rumble strips as follows:

1. If rumble strips slide, become out of alignment, or are no longer in the wheel path of approaching vehicles during the work period, thoroughly clean both sides of the rumble strips and reset on a clean roadway.
2. Repair or replace damaged rumble strips immediately.

D Measurement

The department will measure temporary portable rumble strips as a single lump sum unit of work 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
643.0310.S	Temporary Portable Rumble Strips	LS

Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.

stp-643-020 (20161130)

24. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is ***Select from drop-down.***.

stp-648-005 (20060512)

25. Reestablish Section Corner Monuments, Item SPV.0060.01.

A Description

This special provision describes reestablishing section corner monuments.

B Materials

Provide one of the following survey monuments for each location: A Berntsen Steel Nail Marker, for placement in asphalt pavement; a Berntsen BP1 Brass Marker with anchoring plug for placement in concrete pavement; or a Berntsen Aluminum Break-Off Monument for placement in locations outside the pavement area.

C Construction

C.1 General

All survey work required to reestablish the survey monument from the reference monuments shall be performed by, or under the direction of, a professional land surveyor. Provide an updated county specified tie sheet(s) to the County Surveyor and the Project Engineer. Provide county coordinates for all ties and monuments shown on the tie sheet(s). Obtain an example of the specified tie sheet(s) from the corresponding County Surveyor.

C.2 Berntsen Steel Nail Marker

Locate the exact position for the monument on the asphalt pavement. Drive the Berntsen Steel Nail Marker into the pavement until the top of the Steel Nail Marker is countersunk below the surrounding finished asphalt pavement as shown on the plan details.

C.3 Berntsen BP1 Brass Marker

Drill a hole in the finished concrete pavement using a Berntsen Survey Marker Countersink Drill Bit, Item # BPMDRL. Insert the ribbed plastic expansion plug into the drilled hole. Tap the brass marker stem into the expansion plug until the top of the brass marker is countersunk below the surrounding finished concrete pavement as shown on the plan details.

C.4 Berntsen Aluminum Break-off Monument

Install according to the pertinent provisions of standard spec 621.3 for Non-Driven Aluminum Monuments and the plan details.

D Measurement

The department will measure Reestablish Section Corner Monuments by each individual section corner 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	Reestablish Section Corner Monuments	Each

Payment is full compensation for providing survey monuments; all excavation, backfilling, and drilling necessary to place section corner monuments; furnishing a professional land surveyor and all survey work; and preparing and delivering tie sheets.

ncr-621-010 (20150430)