

Wisconsin Department of Transportation

April 29, 2016

Division of Transportation Systems Development

Bureau of Project Development 4802 Sheboygan Avenue, Rm 601 P O Box 7916

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NOTICE TO ALL CONTRACTORS:

Proposal #35: 6243-07-70, WISC 2016 177

City of Shawano, Airport Drive

STH 29 To CTH B

STH 47

Shawano County

6243-07-70, WISC 2016 178City of Shawano, Airport Drive

CTH B To STH 22

STH 47

Shawano County

Letting of May 10, 2016

This is Addendum No. 01, which provides for the following:

Special Provisions

	Revised Special Provisions
Article No.	Description
2	Scope of Work
3	Prosecution and Progress

	Added Special Provisions						
Article	Description						
No.							
44	se Repair for Stabilize and Relay of Stockpiled Material, item SPV.0035.01						
45	Prepare Foundation for Stabilize and Relay of Stockpiled Material 6243-07-71, Item						
.0	SPV.0105.07						
46	Prepare Foundation for HMA Upper Layers 6243-07-71, Item SPV.0105.08						
47	Stabilize and Relay Stockpiled Material, Item SPV.0180.02; Asphalt Stabilizing Agent Item						
47	SPV.0195.02						

Schedule of Items

Revised Bid Item Quantities													
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total								
305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,001	115	2,116								

Added Bid Item Quantities													
Bid Item	Item Description	Old Quantity	Revised Quantity	Proposal Total									
SPV.0035.01	Base Repair for Stabilize and Relay of Stockpiled Material	CY	0	1500	1500								
SPV.0105.07	Prepare Foundation for Stabilize and Relay of Stockpiled Material 6243-07-71	LS	0	1	1								
SPV.0105.08	Prepare Foundation for HMA Upper Layers 6243-07-71	LS	0	1	1								
SPV.0180.02	Stabilize and Relay Stockpiled Material	SY	0	42994	42994								
SPV.0195.02	Asphalt Stabilizing Agent	TON	0	213	213								

Deleted Bid Item Quantities													
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total								
306.0115	Salvaged Asphaltic Pavement Base	CY	4,743	-4,473	0								

Plan Sheets

	Revised Plan Sheets
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
8	Typical Sections (Replaced Salvaged Asphaltic Pavement Base with Stabilize and Relay Stockpiled Material)
9	Typical Sections (Replaced Salvaged Asphaltic Pavement Base with Stabilize and Relay Stockpiled Material)
10	Typical Sections (Replaced Salvaged Asphaltic Pavement Base with Stabilize and Relay Stockpiled Material)
11	Typical Sections (Replaced Salvaged Asphaltic Pavement Base with Stabilize and Relay Stockpiled Material)
27	Plan Detail (Replaced Salvaged Asphaltic Pavement Base with Stabilize and Relay Stockpiled Material)
97	Miscellaneous Quantities (Revised quantity sheet to remove item Salvaged Asphaltic Pavement Base)
98	Miscellaneous Quantities (Revised quantity sheet to add Base Aggregate quantities for CTH B intersection)
106	Miscellaneous Quantities (Revised quantity sheet to remove item Salvaged Asphaltic Pavement Base. Added Items for Base Repair for Stabilize and Relay of Stockpiled Material, Prepare Foundation for Stabilize and Relay of Stockpiled Material, Prepare Foundation for HMA Upper Layers, Stabilize and Relay Stockpiled Material, and Asphalt Stabilizing Agent)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist Proposal Management Section

ADDENDUM NO. 01 6243-07-70/71 April 29, 2016

Special Provisions

2. Scope of Work.

Replace entire article language with the following:

The work under this contract shall consist of salvaged asphaltic pavement, stabilize and relay stockpiled material, marsh excavation, granular backfill, reconstructing inlets, manholes, and catch basins, HMA pavement, concrete curb and gutter, storm sewer, traffic signals, signing, pavement marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract. 104-005 (20090901)

3. Prosecution and Progress.

Replace entire article language with the following:

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

Do not begin work prior to August 1, 2016.

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.

Close STH 47 between CTH B and Richmond Street, and STH 47 between Richmond Street and STH 22 to construct the project. Do not reopen STH 47 until the following work is completed: Salvaged Asphaltic Pavement, Salvaged Asphaltic Pavement Milling, Stabilize and Relay Stockpiled Material, Railroad Marsh Excavation and Backfill, Railroad Asphaltic Pavement Subgrade, Curb and Gutter, HMA Pavement, Traffic Signals, Signing, and Pavement Marking.

After closure of STH 47, the engineer and contractor shall complete a field investigation of the existing concrete curb and gutter. During this investigation, the bid items of Concrete, Curb and Gutter removal and replacement, shall be located, inspected, marked and adjusted (if necessary). Other bid items may be concurrently located, inspected, marked and adjusted as jointly agreed upon by the engineer and contractor. Complete this investigation five days after the closure of STH 47.

In order for the WCL RR tracks to remain active during the construction project, coordinate a date with WCL to take place after implementation of the detour where no trains are scheduled for removal and installation of the new contractor installed railroad crossing subsurface materials. On that agreed upon date the railroad will remove rails and signal devices for the crossing. The contractor will then complete the items of Salvaged Asphaltic Pavement, Railroad Marsh Excavation and Backfill and Railroad Asphaltic Pavement Subgrade in order for the WCL to install the ballast and rails to re-open to RR traffic. Complete this work within one calendar day.

In order to prevent saturation of the subgrade, where Common Excavation is removed directly below Salvaged Asphaltic Pavement, place the Stabilize and Relay Stockpiled Material within three calendar days after Common Excavation operations.

Immediately after implementing the detour, close the right turn lane on the ramp connecting westbound STH 29 with STH 47 to traffic to construct the reconfigured right turn lane and splitter island. Close the turn lane for a maximum of seven calendar days. Do not reopen the right turn lane until completing the following work: Concrete Pavement SHES, Concrete Curb and Gutter HES, Concrete Sidewalk, Asphaltic Surface, Pull Boxes, Conduit Rigid Metallic, Signing, and Pavement Marking.

Close Richmond Street to complete construction operations within the intersection of STH 47 and Richmond Street. Close Richmond Street for a maximum of 14 calendar days. Do not close Richmond Street prior to June 6, 2016. Do not reopen Richmond Street until the following work is completed: Salvaged Asphaltic Pavement Milling, Salvaged Asphaltic Pavement, Stabilize and Relay Stockpiled Material, Reconstruct Manhole, Curb and Gutter, HMA Pavement lower layer.

Implement temporary all-way stop control at the intersection of Green Bay Street and Airport Drive to complete the modifications to the traffic signal system at the intersection. All way stop control is permitted for a maximum of five consecutive calendar days from 9:00 AM Monday to 11:59 PM Friday. Do not reopen to signalized traffic until the following work is completed: Traffic Signal Controller Equipment, Conduit, Pullboxes, Poles, Loop Detector Lead-In Cable, Signals, Cable Traffic Signal, Video Detection System, LED Traffic Signal Faces, and LED Modules 12-Inch.

If the contractor fails to complete the work necessary to reopen the right turn lane of the ramp connecting westbound STH 29 with STH 47 to traffic within seven calendar days, the department will assess the contractor \$2,500 in interim liquidated damages for each calendar day that the roadway remains closed beyond seven days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete the work necessary to reopen Richmond Street to traffic within 14 calendar days, the department will assess the contractor \$1,500 in interim liquidated damages for each calendar day that the roadway remains closed beyond fourteen days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete the work necessary to reopen the reopen intersection of Green Bay Street and Airport Drive to signalized control by 12:01 AM Saturday, the department will assess the contractor \$2500 in interim liquidated damages for each calendar day that the roadway remains all-way stop control beyond 12:01 AM Saturday. An entire calendar day will be charged for any period of time within a calendar day that the road remains all-way stop control beyond 12:01 AM.

The department will not grant time extensions to the interim completion dates specified above for the following:

- 1. Severe weather as specified in standard spec 108.10.2.2.
- 2. Labor disputes that are not industry wide.
- 3. Delays in material deliveries.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

44. Base Repair for Stabilize and Relay of Stockpiled Material, item SPV.0035.01

A Description

This special provision describes Base Repair for Stabilize and Relay of Stockpiled Material in accordance with Preparation of Foundation for Stabilize and Relay of Stockpiled material and Preparation of Foundation for HMA Upper Layers in accordance with Section 211 of the Standard Specifications.

B (Vacant)

C Construction

Section 211.3.5 of the Standard Specifications is supplemented as follows:

Prior to and during the placement of the Stabilize and Relay Stockpile Material the contractor shall also be responsible for the work covered under this item.

Perform work under this bid item in accordance with Section 205 of the Standard Specifications.

Remove soft and/or yielding areas of base to a maximum depth of 2-feet. All areas will be documented and information will be provided to the project engineer. If areas are found after paving operation begin, the project engineer will be notified of locations. Excavated area will be filled and compacted with material that meets the material requirements of Section 305 and Base Aggregate Dense 1 ¼-inch or Section 306 and Salvaged Asphaltic Pavement Base or Section 465 and Asphaltic Surface. Do not exceed plan quantity without written approval of the project engineer.

D Measurement

The department will measure Base Repair for Stabilize and Relay of Stockpiled Material by the CY acceptably completed.

E Payment

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

ITEM	DESCRIPTION	UNIT
NUMBER		
SPV.0035.01	Base Repair for Stabilize and Relay of Stockpiled	CY
	Material	

Payment is full compensation for removing/excavating areas of base to a maximum of 2-feet, any saw cuts, providing, placing, and compacting dense graded base course and/or Salvaged Asphaltic Pavement Base, and traffic control.

45. Prepare Foundation for Stabilize and Relay of Stockpiled Material 6243-07-71, Item SPV.0105.07

A Description

This special provision describes Preparation of Foundation for work required prior to Stabilize and Relay of Stockpiled Material in accordance to standard spec 211 and as hereinafter provided.

B (Vacant)

C Construction

After any contract required surface mill, the engineer and contractor shall visually inspect the aggregate surface for yielding areas.

Yielding areas will then be repaired prior to the Stabilize and Relay of Stockpiled Material process. The identified yielding areas will be excavated to a maximum of two feet and repaired with dense graded base to the top of the adjacent aggregate surface.

After any contract required milling, and immediately prior to commencing Stabilize and Relay of Stockpiled Material operations, remove from the roadway, and up to one inch below the milled surface, any vegetation, standing water, and any other deleterious materials and compact the aggregate surface.

D Measurement

The department will measure Prepare Foundation for Stabilize and Relay of Stockpiled Material (Project) by the lump sum, 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.0105.07 Prepare Foundation for Stabilize and Relay of LS Stockpiled Material 6243-07-71

Omit and replace standard spec 211.5.1 (4) with the following:

Payment is full compensation for brooming, crack fill removal, any saw cuts, any additional milling, any test rolling, and for placement of acceptable material into these areas.

The department will pay separately for the following work associated with yielding areas under this item under the following contract items:

-Base Repair for Stabilize and Relay of Stockpiled Material

46. Prepare Foundation for HMA Upper Layers 6243-07-71, Item SPV.0105.08

This special provision describes preparation of foundation for work required prior to placement of the HMA upper layer after completion of Stabilize and Relay Stockpiled Material in accordance to standard spec 211 and as hereinafter provided.

B (Vacant)

C Construction

Prior to placement of the HMA upper layers, the engineer and contractor shall visually inspect the Stabilize and Relay Stockpiled Material layer for distresses including, but not limited to raveled areas, rutted areas, areas of excess or deficient stabilizing agent, yielding areas, or deficient surface tolerance areas.

Raveled areas, non-structural related rutted areas, areas of excess or deficient stabilizing agent, and deficient surface tolerance areas shall be re-processed or repaired at no additional cost to the department.

Yielding areas will be excavated to a maximum depth of two feet and repaired with base course and a minimum of 5" Asphaltic Surface to the top of the Stabilize and Relay Stockpiled Material Layer.

Prior to the upper HMA layers being placed, the contractor shall monitor and the test the Stabilize and Relay Stockpiled Material layer for moisture content at a frequency described in Section C.7.1.(3) of the Stabilize and Relay Stockpiled Material, Item SPV. The contractor shall provide to the engineer results demonstrating that the of Stabilize and Relay Stockpiled Material layer throughout the project meets the requirements of C.7.1 Curing of the Stabilize and Relay Stockpiled Material, Item SPV.

D Measurement

The department will measure Prepare Foundation for HMA Upper Layers (Project) by the lump sum, 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.0105.08	Prepare Foundation for HMA Upper Layers	LS
	6243-07-71	

Omit and replace standard spec 211.5.1 (4) with the following:

Payment is full compensation for furnishing all work under this item including moisture testing and correcting surface tolerance deviations.

The department will pay separately for the following work associated with yielding areas under this item under the following pertinent contract items:

-Asphaltic Surface for mix placed under this item to correct yielding areas

47. Stabilize and Relay Stockpiled Material, Item SPV.0180.02; Asphalt Stabilizing Agent Item SPV.0195.02.

A Description

(1) This section describes stabilizing and relaying of previously salvaged and stockpiled material to construct a new base. The addition of the stabilizing agent can be done on the roadbed or at the stockpile location.

B Materials

B.1 Reclaimed Asphalt Pavement (RAP) Material

(1) The material from the item Salvaged Asphaltic Material must conform to the following gradation before addition of the stabilizing agent.

Sieve Size	Percent Passing
1 ½" (37.5 mm)	100
1"	95 to 100

B.2 Stabilizing Agent

- (1) The asphalt stabilizing agent shall be the contractor's option of:
 - A. Foamed asphalt
 - B. Emulsion

B.2.1 Foamed Asphalt

- (1) Foamed asphalt shall be produced with a performance graded asphalt binder; without polymer modification; in accordance with Standard Specification 455.
- (2) Asphalt binder performance grade for foamed asphalt shall be PG 46-34 or PG 52-34
- (3) Asphalt binder shall be sufficiently heated to meet the mix design expansion and half-life criteria; not to exceed 375° F.
- (4) Asphalt binder shall produce asphalt foam with a minimum expansion ratio of 8 and half-life of no less than 6 seconds.

B.2.2 Emulsion

(1) Emulsion type shall be determined by the mix design.

B.2.3 Water

- (1) Water may be added to the milled and stockpiled material at the milling head and/or in at the stockpile location.
- Water added to the RAP, used for foaming asphalt, or incorporated with the asphalt emulsion shall meet the requirements of Standard Specification 501.2.4.

B.3 Mixture Design

- (1) The contractor will be responsible for obtaining milled samples and/or cores for the project mix design.
- (2) Develop and submit a material sampling plan to the engineer; for review with and approval by the Bureau of Technical Services Materials Management Section; 5 business days prior to obtaining milled and/or cored samples.
- (3) Material sampling prior to receipt of the engineers notice to proceed shall require submittal and approval of an Application/Permit to Work on Highway Right-of-Way (DT1812).
- During material sampling operations; contractor insurance will be as specified in section 107 of the Standard Specifications; traffic control requirements will be as specified in sections 107 and 643 of the Standard Specifications and in the contract special provisions.
- (5) Develop and submit a Job Mix Formula (JMF) for approval 10 business days prior to the start of the CIR operation. The JMF will be developed according to the applicable portions of Mix Design Method 1559, as described in Material Manual (CMM) 8.66.2; and conforming to the requirements of Table B.3. The JMF will be submitted to the engineer for review with and approval by the Bureau of Technical Services Materials Management Section.

Table B.3 – Minimum Mix Design Requirements

	Test Method	Specification	Criteria
Si	Gradation of RAP (Sieve Analysis	•	See Section
ent	of Aggregates)		B.1.(4)
. Ag	Bulk Specific Gravity of		Report Only;
zing	Compacted Samples		Ndes=30
billi	Maximum Theoretical Specific	MicDOT Laboratory	
Sta	Gravity	WisDOT Laboratory Standard Method of	Report Only
₹	% Air Voids in Compacted Dense	Asphalt Mix Design	
for	and Open Bituminous Paving	(Method 1559);	
nts	Mixtures	CMM 8-66	Report Only
mei	Tensile Strength (Resistance of		
iire	Compacted Mixture to Moisture)		
edr	Dry, psi		Minimum 45
n. R	Wet (conditioned), psi		Minimum 30
esig	Ratio (TSR), %		Minimum 0.70
Mix Design Requirements for All Stabilizing Agents	PAD Coating Tost	AASHTO T 59	Minimum
ΞΞ	RAP Coating Test	AASHIU 139	Good
	Minimum Virgin Asphalt Content		1.5%
Mix Design Requirements for Foamed Asphalt			
gn its f pha			Minimum 8.0
ner As	Foamed Asphalt Expansion Ratio		Times
Mix Design quirements amed Asph			
M equ oar			Minimum 6.0
~ ~ ~	Foamed Asphalt Half-life		Seconds
pe			
sific	Emulsion sieve test, % of sample		
lnm	weight	AASHTO T 59(1)	Maximum 0.1
for Emulsified	weight	70.51110 1 55(1)	WIGAIIII G.1
ent alt	Emulsion Residue by Distillation,		
uirement Asphalt	%	AASHTO T 59 (1)	Minimum 60
quii A		(-)	
Re			
ign	Emulsion Distillation Penetration,		Minimum 75
Des	25°C, 100 g, 5s	AASHTO T 49	Maximum 200
Mix Design Requirements Asphalt			
_	Maximum Emulsified Asphalt		Donort Oale
	Temperature		Report Only

- (1) Modify AASHTO T 59 procedure distillation temperature of $175^{\circ}\text{C} \pm 5^{\circ}\text{C}$ with a 20 minute hold.
- (6) The mix design JMF shall be the baseline measure for the rate of stabilizing agent application and water blended with the RAP to construct the Stabilize and Relayed Layer. The mix design shall indicate the allowable tolerance for field adjustments for the stabilizing agent and/or water so as not to jeopardize the performance of the mix in regards to Table B.3, but allow the contractor to adjust the mix in response to field conditions.
- (7) The mix design report shall contain the following minimum information:
 - · Gradation of RAP
 - Density, maximum specific gravity, air void content, indirect dry tensile strength, indirect
 wet (conditioned) tensile strength, and tensile strength ratio at each recycling agent
 content iteration (minimum of 4; inclusive of recommended moisture and stabilizing
 contents) and at the recommended moisture and stabilizing agent contents
 - Recommended water content range as a percentage of dry RAP
 - Optimum stabilizing agent content as a percentage of dry RAP
 - Stabilizing agent designation, PG grading of asphalt binder if applicable, supplier name and location, emulsified asphalt residue asphalt content if applicable, and certificates of compliance
 - Application means of recycling agent
 - RAP coating test results for emulsified asphalt recycling agent
 - Allowable tolerances for field adjustments for stabilizing agent and/or water.

B.4 Quality Management Program

B.4.1 Quality Control Plan

- Submit a comprehensive written quality control plan to the engineer no later than 10 business days before beginning Stabilize and Relay activities. Construct the project as the plan provides.
- (2) Do not change the quality control plan without the engineer's review and acceptance. 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:
 - 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 - 2. 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.
 - 3. A list of suppliers for all stabilizing agents.
 - 4. A list of source locations for all water.
 - 5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
 - 6. Location of the QC laboratory, retained sample storage, and other documentation.
 - 7. A summary of locations or quantities, selected randomly using ASTM Method D3665, to be tested under this provision.

B.4.2 Personnel

- (1) Provide HTCP Nuclear Density Technician I, or ACT certified technician, for performance of field density and field moisture content testing.
- (2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling

and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.4.3 Equipment

- (1) 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 applicable AASHTO and/or ASTM specifications and maintain a calibration record at the laboratory.
- (2) Furnish nuclear gauges from the department's approved product list at: http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm
- (3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.
- (4) Conform to ASTM D 6938 and CMM 8.15 for density testing and gauge monitoring methods.

B.4.4 Quality Control (QC) Testing

- (1) Roadway production lots will be defined as 4000 lane feet. Each roadway production lot will consist of two- 2000 lane feet sublots.
- (2) Samples shall be taken at a minimum frequency of 1 per lot of production.
- (3) Samples shall be taken representative of the full recycled depth from the roadbed or stockpile location, immediately prior to application of the stabilizing agent.
- (4) For each sample report the gradation of material, determined in accordance with AASTHO T27, for the Number 4 (4.75mm) sieve and larger.
- (5) Report stabilizing agent foaming properties, if applicable, (i.e. half life and expansion ratio) at a minimum frequency of 1 per lot of production.
- (6) Conduct and report density testing at a minimum frequency of 3 random tests per sublot.
- (7) Report stabilizing agent temperature and application rate at a minimum frequency of 1 per sublot.
- (8) The contactor shall provide a Daily Inspection Report to the engineer summarizing the: daily beginning and ending stations, applicable mix design, sublot test (density test, stabilizing agent temperature and application rate) locations and values, lot roadway sample locations, and any adjustments to the application rate of the stabilizing agent or water.
- (9) If at any time during production, stabilizing agent adjustments for mixing and placement exceed the allowable limits defined in B.3.(6) or reduce the stabilizing agent application rate below the 1.5% mix design minimum specified in Table B.3, based on a single test or meter adjustment, from the Job Mix Formula (JMF) value, re-evaluation of the entire process must be completed. Approval by the engineer granted before production can resume.

B.4.5 Department Testing B.4.5.1 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 QV and IA personnel for the project,

and provide test results to the contractor within 5 business days after the department obtains the sample.

B.4.5.2 Quality Verification (QV) Testing

- The department will have a technician, or ACT working under a technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 10% of the required QC tests.
- (3) The department will locate gradation, mill depth check, roadway sample, and density test samples, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will split each QV sample, test half for QV, and retain the remaining half for 7 calendar days.
- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If QV test results are nonconforming, re-evaluation of the entire process must be completed before production can resume.
- (6) The department reserves the right to adjust the rate of the asphalt stabilizing agent at any time. The department will accept any risk to the Stabilize and Relayed layer associated any adjustments made by the department.

B.4.5.3 Independent Assurance (IA)

- Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 - Split sample testing.
 - 2. Proficiency sample testing.
 - 3. Witnessing sampling and testing.
 - 4. Test equipment calibration checks.
 - 5. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.4.5.4.

B.4.5.4 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 shall review the data, examine data reduction and analysis methods, evaluate sampling and testing methods/procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- Production test results, and results from other process control testing, may be considered when resolving a dispute.

If project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, 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 test results 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.

C Construction

C.1 General

- (1) Perform stabilize and relay operation; only between the dates of May 1 and October 1; when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is above 50°F and when the nighttime ambient air temperature is above 45°F the night prior and following; unless approved otherwise by the engineer.
- Do not perform recycling operations during inclement weather; such as rain or fog; that will not allow proper mixing, placing, and/or compacting of the mixture.
- (3) Stabilize and Relay operations and curing shall be completed to allow adequate time for placement of surfacing in accordance with calendar requirements of Standard Specification section 450.3.2.1.

C.2 Equipment

C.2.1 Milling, Stabilizing and Relaying Equipment

- (1) Equipment used for stabilize and relay shall be subject to approval by the engineer.
- (2) The contractor shall furnish a self-propelled machine capable of relaying the previously stockpiled material full lane width to the depth shown on the plan in one pass. The machine shall be equipped with automatic depth control, and uniform grade and slope. It shall insure properly sized relayed material or additional screening or crushing will be required. Any visual oversized crack fill material shall be removed prior to the application of the asphalt stabilizer.
- The contractor shall furnish equipment capable of mixing the relayed material and asphalt stabilizing agent into a homogeneous mixture in a continuous operation, or shall be capable of mixing the previously stockpiled material with the asphalt stabilizing agent prior to delivery to the relay equipment. The equipment shall accurately control the rate of flow and total delivery of the asphalt stabilizing agent in relation to the amount of relayed material being processed.
- (4) When foamed asphalt is used, the asphalt foaming system shall accurately inject and monitor the specified percent of water into the hot asphalt cement. The equipment shall be fitted to provide field samples of the foamed asphalt. Tankers supplying the hot AC shall be equipped to constantly monitor temperature within the tank.
- (5) The placing of the asphalt stabilized relay mixture shall be accomplished by a self-propelled mechanical paver in one continuous pass without segregation at the slope and depth specified in the plans. Unless approved by the engineer, the vibratory screed shall not be heated. When a pick-up machine is used to feed the windrow into the paver, the entire windrow shall be picked up from the milled surface.

C.2.2 Paving Equipment

- (1) The placement and shaping of the recycled pavement mixture shall be completed using a self-propelled paver or screed integral to the recycling equipment meeting the requirements of Standard Specification section 450.3.1.4; revised to exclude the requirement of an activated screed or strike-off assembly.
- (2) The screed shall not be heated.
- (3) If utilizing a self-propelled paver, the material shall be transferred directly into the paver hopper from the recycling equipment or with a pick-up device. When a pick-up device is used, the entire windrow shall be removed from the milled surface and transferred to the paver hopper.

C.2.3 Compaction Equipment

- (1) Compaction equipment shall be self-propelled and meet the requirements of Standard Specification 450.3.1.5
- (2) The number, weight, and types of rollers shall be as necessary to achieve the specified compaction.

C.3 Constructing Stabilize and Relay Base

C.3.1 Processing and Placement of Recycled Pavement Mixture

- (1) Blend the RAP material with the mix design specified proportions of stabilizing agent and water; produce a uniform and homogeneous recycled mixture.
- (2) Spread the recycled mixture to the grade, elevations, and slopes specified on the plans; avoiding tearing or scarring of the recycled pavement surface.
- (3) Ensure proper material transfer, handling, and spreading to prevent particle segregation.
- (4) Longitudinal joints between successive stabilized and relay operations shall be overlapped a minimum of 3 inches. Transverse joints between successive Stabilize and Relayed operations shall be overlapped a minimum of 2 feet.

C.4 Compaction

C.4.1 Control Strip Construction

- On the first day of production, construct a control strip to identify the target wet density for the recycled layer. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel.
- Unless the Engineer approves otherwise, construct control strips to a minimum dimension of 500 feet long and one full lane width.
- (3) Completed control strips may remain in-place to be incorporated into the final roadway cross-section.
- (4) Construct additional control strips, at a minimum, when:
 - 1. The Stabilize and Relay layer thickness changes in excess of 2.0 inches.
 - 2. The percent of target density is less than 90% or exceeds 105.0%; and is outside the range of the 10 random measurements defining the control strip; on three consecutive sublots.

- 3. If there is a significant change in mix proportions, weather conditions, compaction equipment's or other controlling factors, the Engineer may require construction of new control strips to check target density.
- (5) Construct control strips using equipment and methods representative of the operations to be used for constructing the Stabilize and Relayed Layer.
- (6) After compacting the control strip with a minimum of 2 passes, mark and take density measurements at 3 random locations, at least 1 ½ feet from the edge of the stabilize and relay layer. Subsequent density measurements will be taken at the same 3 locations.
- (7) After each subsequent pass of compaction equipment over the entirety of the control strip, take density measurements at the 3 marked locations. Continue compacting and testing until the increase in density measurements is less than 2.0 lb/ft³, or the density measurements begin to decrease.
- (8) Upon completion of control strip compaction, take 10 randomly located density measurements within the limits of the control strip, at least 1 ½ feet from the edge of the base. The final measurements recorded at the 3 locations under article paragraph (6) of this section may be included as 3 of the 10 measurements. Average the 10 measurements to obtain the control strip target density.

C.4.2 Compaction Requirements

(1) Compact the stabilize and relay layer to a required density of 93% of the target density.

C.5 Surface Requirements

- (1) Test the pavement surface at regular intervals, and engineer selected locations, using a 10-foot straightedge or other engineer specified device.
- (2) The engineer may direct the repair of surface deviations greater than 1/2 inch between two surface contact points. High points shall be corrected by reworking, rerolling, trimming, milling, or grinding. Depressions may be corrected by reworking or have a tack coat applied and be filled with HMA immediately prior to placement of the surface treatment.

C.6 Maintaining the Work

- (1) After compaction is complete, the contractor will determine when the Stabilize and Relayed is stable to open to traffic.
- (2) After opening to traffic, and prior to placing a surface treatment, the surface of the Stabilize and Relayed pavement shall be maintained in a condition suitable for safe movement of traffic.
- (3) The Stabilize and Relayed surface shall be protected and maintained from standing water, deleterious substances, and/or other damage.
- (4) Any damage to the Stabilize and Relayed pavement shall be repaired by the contractor prior to placement of the upper layer at no additional cost to the department; unless otherwise specified in the "Preparation of Foundation for HMA Upper Layer" SPV item.

C.7 Curing and Surfacing

C.7.1 Curing

- (1) Application of a surface treatment will not be allowed until the moisture content of the Stabilize and Relayed layer is not more than 2.0%.
- (2) If the moisture content of the Stabilize and Relayed layer does not reduce to 2.0%; the surface treatment may be applied after the change in moisture content is less than 0.10 percentage points for three consecutive calendar days.

(3) Conduct and report moisture content of the finished CIR layer at minimum of 3 random tests for each day of placement. The moisture content shall be determined from a sample retrieved over the full-depth of the CIR layer by weighting and drying to a constant weight using an oven at 230° ±9°F

C.7.2 Tack Coat

- (1) The surface shall be prepared and tack coat applied meeting the requirements of Standard Specification section 455.3.2.
- (2) Minimum tack coat application rate shall be 0.05 gal/SY
- (3) A hot asphaltic cement tack coat shall not be used.

C.7.3 Surfacing

(1) Surfacing materials, equipment, and construction methods shall be in accordance with the applicable sections of the Standard Specifications or contract special provisions.

D Measurement

- The department will measure the Asphalt Stabilizing Agent incorporated into the work by the ton; as metered through a calibrated pump, or through delivered ticket quantity.
- (2) The Department will measure the Stabilize and Relay Stockpiled Material bid item as acceptably completed by the Square Yard (SY).

E Payment

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

ITEM	DESCRIPTION	UNIT
NUMBER		
SPV.0180.02	Stabilize and Relay Stockpiled Material	SY
SPV.0195.02	Asphalt Stabilizing Agent	Ton

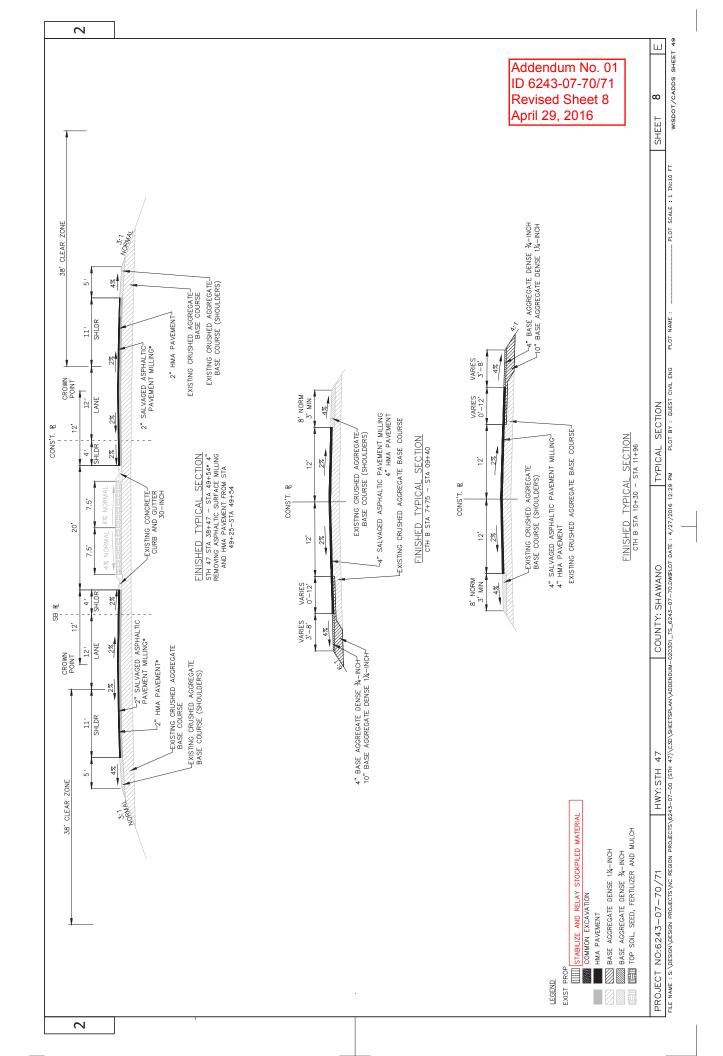
- (2) Payment is full compensation for measured quantities as specified above, all material including mixing water, equipment necessary for mixing, resizing, relaying, compaction of the completed Stabilize and Relay of Stockpiled Material and for furnishing all labor, tools, and incidentals necessary to the conduct mix design; including sampling and sampling traffic control; inject and mix the RAP with the stabilizing agent, place or pave, compact, and maintain the completed Stabilize and Relay Stockpiled Material.
- (3) Preparation work and repair of yielding areas will be paid for under the Prepare Foundation for Stabilize and Relay Stockpiled Material Pavement and Prepare Foundation for HMA Upper Layer SPV items.
- (4) Surfacing treatments, including tack coat, will be constructed and paid for under the applicable specifications and contract items.

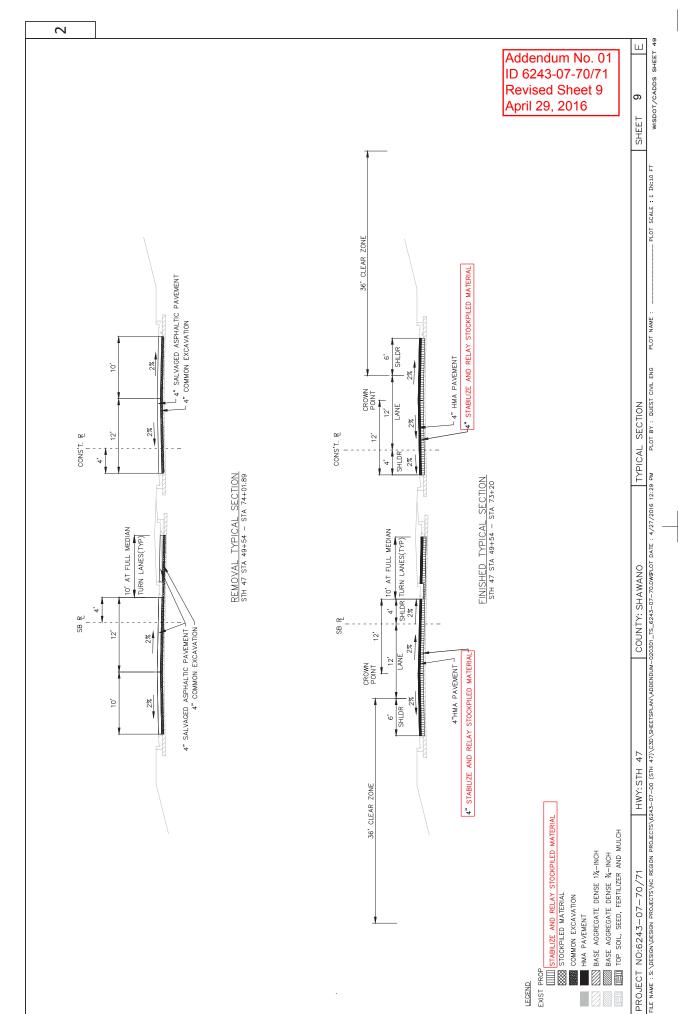
Schedule of Items

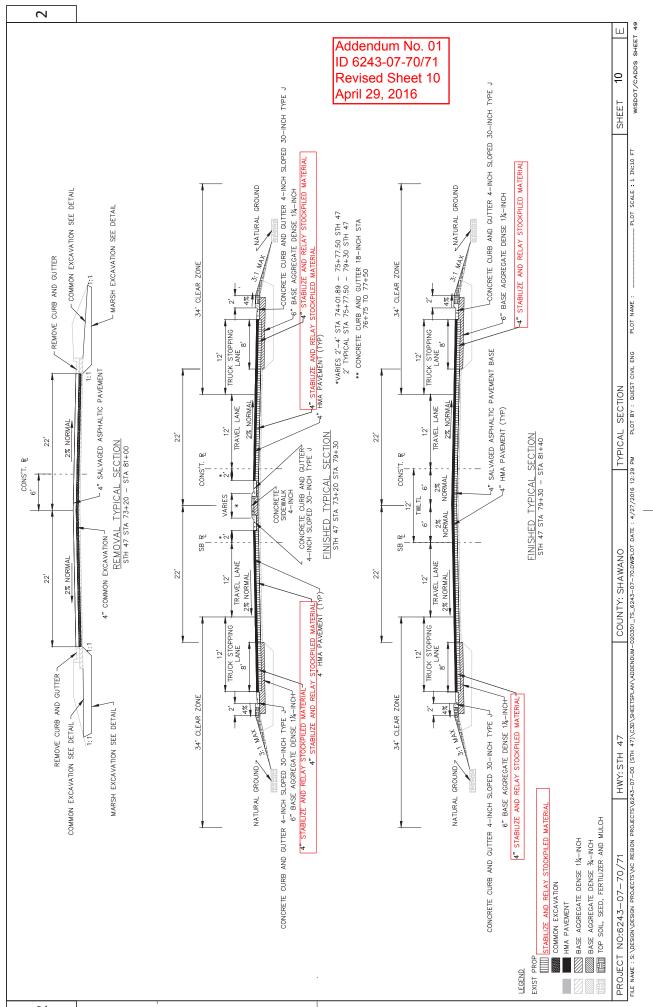
Attached, dated April 29, 2016, are the revised Schedule of Items Pages 2 – 4, and 19.

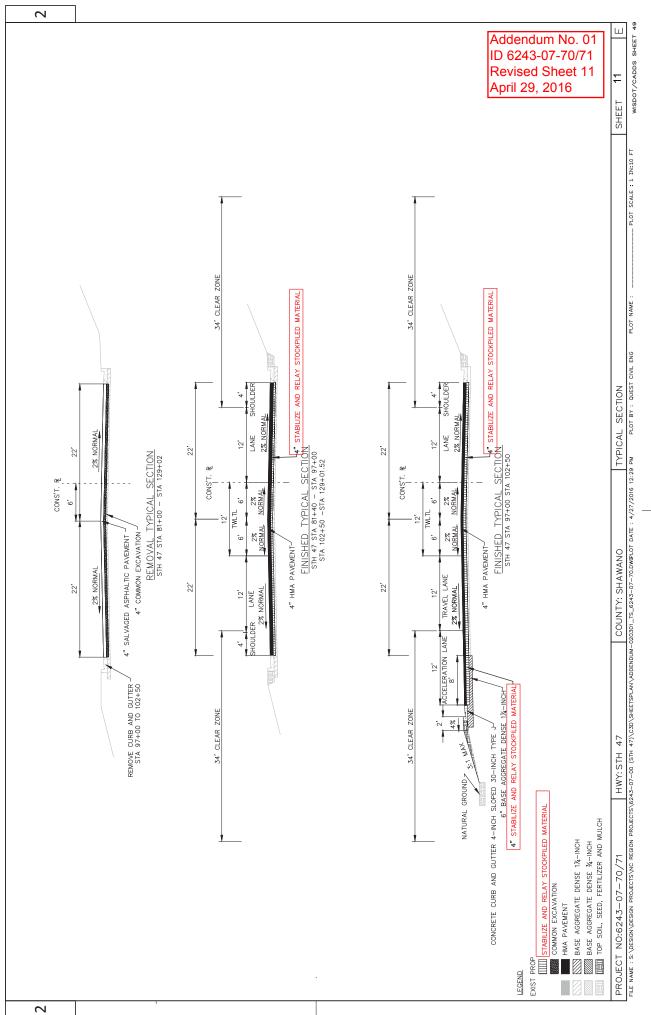
Plan Sheets

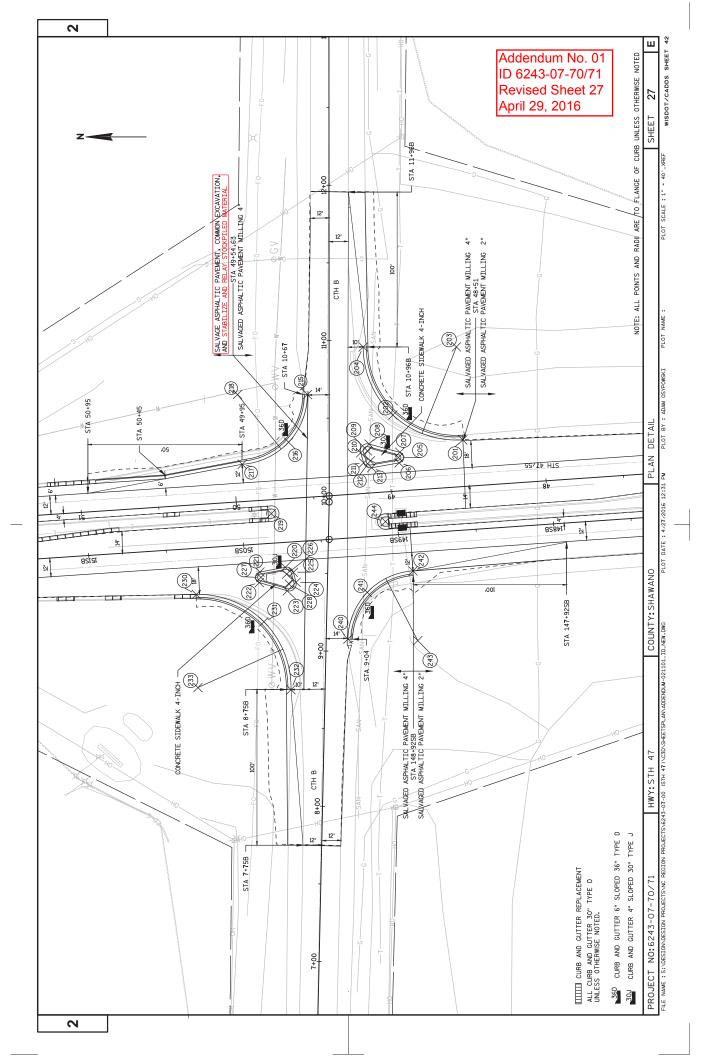
The following $8\frac{1}{2}$ x 11-inch sheets are attached and made part of the plans for this proposal: Revised: 8 - 11, 27, 97, 98 and 106





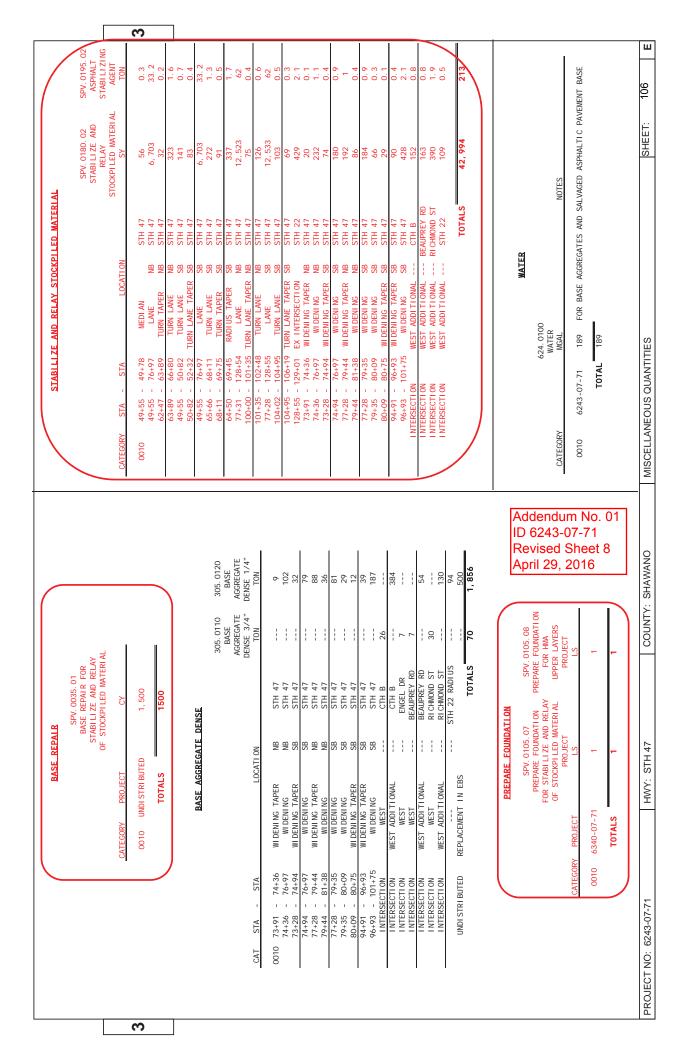






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	া	CATEGORY 0010	CATEGORY 0010	Revised Sheet 98 April 29, 2016	N LOHI CA



Wisconsin Department of Transportation PAGE: 2 DATE: 04/29/16

SCHEDULE OF ITEMS

REVISED:

PROJECT(S): FEDERAL ID(S): 6243-07-70 WISC 2016177 6243-07-71 WISC 2016178 CONTRACT: ONTRACT: 20160510035

LINE NO	ITEM DESCRIPTION 	APPROX.	UNIT PRICE	BID AMOUNT	
		QUANTITY AND UNITS	I	DOLLARS CTS	
0100	204.0245 Removing Storm Sewer (size) 03. 18-Inch	 24.000 LF		 	
0110	204.0245 Removing Storm Sewer (size) 04. 24-Inch	 36.000 LF			
0120	204.0245 Removing Storm Sewer (size) 05. 30-Inch	 6.000 LF			
	204.0270 Abandoning Culvert Pipes 	 1.000 EACH		 	
0140	205.0100 Excavation Common	 8,999.000 CY		 	
	205.0400 Excavation Marsh 	 3,540.000 CY		 	
	209.0100 Backfill Granular 	 6,055.000 CY		 	
0170	213.0100 Finishing Roadway (project) 01. 6243-07-70	 1.000 EACH		 	
	213.0100 Finishing Roadway (project) 02. 6243-07-71	 1.000 EACH		 	
0190	305.0110 Base Aggregate Dense 3/4-Inch 	 206.000 TON		 	
0200	305.0120 Base Aggregate Dense 1 1/4-Inch 	 2,116.000 TON		 .	

Wisconsin Department of Transportation PAGE: 3 DATE: 04/29/16

SCHEDULE OF ITEMS REVISED:

CONTRACT: ONTRACT: 20160510035

PROJECT(S): FEDERAL ID(S): 6243-07-70 WISC 2016177 6243-07-71 WISC 2016178

LINE	! -	APPROX.		UNIT PRICE	I .	
NO	DESCRIPTION		J	 DOLLARS CTS		
	416.0610 Drilled Tie Bars 	 EACH	30.000	 	 	
	416.0620 Drilled Dowel Bars 	 EACH	10.000	 	 	
	440.4410 Incentive IRI Ride 	 DOL	3,800.000	1.00000	 3800.00	
0250	455.0605 Tack Coat 	 GAL	3,225.000			
	460.2000 Incentive Density HMA Pavement 	 DOL	7,193.000	1.00000	 7193.00 	
	460.4000 HMA Cold Weather Paving 	 TON	2,235.000	 	 	
	460.6223 HMA Pavement 3 MT 58-28 S 	 TON	5,104.000			
	460.6424 HMA Pavement 4 MT 58-28 H 	 TON	6,182.000	 - .	 .	
	465.0105 Asphaltic Surface 	 TON	22.000			
	465.0315 Asphaltic Flumes 	 SY	23.000	 	 	
0320	490.0100 Salvaged Asphaltic Pavement 	 SY	40,599.000		 .	

Wisconsin Department of Transportation PAGE: 4 DATE: 04/29/16

SCHEDULE OF ITEMS

REVISED:

PROJECT(S): FEDERAL ID(S): 6243-07-70 WISC 2016177 6243-07-71 WISC 2016178 CONTRACT: ONTRACT: 20160510035

LINE		APPROX.	UNIT PRICE	BID AMOUNT	
NO	DESCRIPTION	QUANTITY AND UNITS	 DOLLARS CTS	 DOLLARS CTS	
0330	490.0200 Salvaged Asphaltic Pavement Milling	 10,097.000 SY	 	 .	
0340	520.8700 Cleaning Culvert Pipes 	 5.000 EACH			
0350	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	 1.000 EACH			
0360	522.0115 Culvert Pipe Reinforced Concrete Class III 15-Inch	 10.000 LF			
0370	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	 12.000 LF		 	
0380	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	 6.000 EACH	 		
0390	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	 4.000 EACH	 		
0400	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	3.000 EACH	 		
0410	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	10.000 EACH	 		

Wisconsin Department of Transportation PAGE: 19 DATE: 04/29/16

REVISED:

SCHEDULE OF ITEMS

PROJECT(S): FEDERAL ID(S): 6243-07-70 WISC 2016177 6243-07-71 WISC 2016178 CONTRACT: ONTRACT: 20160510035

LINE NO	ITEM	APPROX. QUANTITY AND UNITS	UNIT PRICE	BID AMOUNT	
	DESCRIPTION		 DOLLARS CTS	DOLLARS CTS	
1850	SPV.0195 Special 01. Railroad Asphaltic Pavement Subgrade	 65.000 TON			
1860	SPV.0035 Special 01. Base Repair For Stabilize And Relay Of Stockpiled Material	 1,500.000 CY	 		
1870	SPV.0105 Special 07. Prepare Foundation For Stabilize And Relay Of Stockpiled Material 6243-07-71	LUMP	LUMP		
1880	SPV.0105 Special 08. Prepare Foundation For HMA Upper Layers 6243-07-71	LUMP	 LUMP		
1890	SPV.0180 Special 02. Stabilize And Relay Stockpiled Material	 42,994.000 SY	 	 	
1900	SPV.0195 Special 02. Asphalt Stabilizing Agent	 213.000 TON	 .	 	
	 SECTION 0001 TOTAL				
	 TOTAL BID		 		