



Wisconsin Department of Transportation

August 3, 2015

Division of Transportation Systems Development

Bureau of Project Development
 4802 Sheboygan Avenue, Rm 601
 P O Box 7916
 Madison, WI 53707-7916

NOTICE TO ALL CONTRACTORS:

Telephone: (608) 266-1631
 Facsimile (FAX): (608) 266-8459

Proposal #01: 1003-10-72
Illinois State Line - Madison
STH 11 Avalon Road Interchange
IH 39
Rock County

Letting of August 11, 2015

This is Addendum No. 02, which provides for the following:

Special Provisions

Revised Special Provisions	
Article No.	Description
8	Utilities
30	Concrete Pavements

Added Special Provisions	
Article No.	Description
78	Notice to Contractor - Construction Safety
79	QMP HMA Pavement Nuclear Density
80	Install Conduit Into Existing Item, Item 652.0700.S

Deleted Special Provisions	
Article No.	Description
77	QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item SPV.0195.001

Schedule of Items

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	11,540	11,930	11,930
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	7,508	7,778	7,778
655.0625	Electrical Wire Lighting 6 AWG	LF	1,524	3,054	3,054
674.0300	Remove Cable	LF	633	2,163	2,163
SPV.0060.002	CPM Progress Schedule Updates and Accepted Revisions	EA	1	14	14
SPV.0060.503	Remove Electrical Service Meter Breaker Pedestal	EA	1	1	2

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
652.0700.S	Install Conduit Into Existing Item	EA	0	1	1
656.0200.001	Electrical Service Meter Breaker Pedestal – ITS	LS	0	1	1

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0195.001	QMP Base Aggregate Dense 1 1/4-Inch Compaction	TON	53,165	0	0

Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
135	ITS Communication Schematics (added "Final Condition" to title to differentiate from temporary ITS)
142	ITS Removal Plans (added note to specify the timeframe for removal of existing equipment utilized in the temporary ITS system)
143	ITS Plan (shows new conduit for electric service connection)
150	Traffic Control Signals (shows new conduit for electrical service connection)
323	Miscellaneous Quantities (revised sheet to remove quantity for QMP Base Aggregate Dense 1 1/4-Inch Compaction)
325	Miscellaneous Quantities (revised sheet to remove quantity for QMP Base Aggregate Dense 1 1/4-Inch Compaction)
348	Miscellaneous Quantities (revised sheet to add additional quantity for Conduit Rigid Nonmetallic Schedule 40 3-Inch to electrical service)
357	Miscellaneous Quantities (revised sheet to add additional updates and revisions for CPM Progress Schedule Updates and Accepted Revisions)
358	Miscellaneous Quantities (revised sheet to add additional quantity for ITS items)
359	Miscellaneous Quantities (revised sheet to add additional quantity for ITS items)

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
135A	ITS Communication Schematics (shows communication schematic for temporary ITS)
142A	Temporary ITS Plans (shows temporary ITS)

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. 02

1003-10-72

August 3, 2015

Special Provisions

8. Utilities.

Replace the entire Alliant Energy - Electric section with the following:

Alliant Energy-Electric has underground and overhead facilities within the project limits at the following locations:

There is an overhead electric line on Avalon Road from Station 289+90 AW, LT to CTH J. There is an underground crossing at Station 292+50 AW. There are power poles at Stations 290+50 AW, 292+50 AW, 294+50 AW, 296+50 AW, 298+66 AW, 300+68 AW, 303+26 AW, and 305+88 AE.

There is an underground electrical service along Avalon Road from Station 282+10 AE, RT to Station 292+50 AE, RT. The service line crosses beneath Avalon Road at Station 292+50 AE to the power pole located at Station 292+50 AW, LT. There is a meter breaker pedestal at Station 285+60 AW, RT.

Conflicts are anticipated with the underground electrical service and the overhead line. The underground electrical service will be abandoned in place. All above ground facilities will be removed. It is anticipated to take 3 days to remove/abandon the existing facilities.

Alliant Energy will install a new underground line from Station 288+50 AE, RT to Station 308+00 AE, RT. Complete initial rough grading around power poles from Station 290+50 AW, LT to Station 305+88 AE, LT. Alliant Energy will install a new pad mounted transformer at approximately Station 288+75 AE RT. The new underground line and transformer will be installed before the overhead line along the north side of Avalon Road is de-energized and removed. The relocation of the electrical service will be completed prior to completing the final grading along the north side of Avalon Road, between Station 288+50 AW, LT and Station 308+00 AE, RT. Installation of the new underground facilities is expected to take two days to complete. Notify Alliant Energy at least three weeks in advance of rough grading along the north side of Avalon Road.

A temporary electrical service is required to maintain power to the existing ITS components. A meter breaker pedestal for a temporary electrical service will be installed adjacent to Alliant Energy's pad mounted transformer as part of this contract. Alliant Energy will install the meter once the pedestal is placed. The power source for the existing ITS components must be switched to the temporary connection before Alliant Energy can remove the existing facilities.

Conduit between the new pad mounted transformer at Station 288+75 AE, RT and the new pedestal will be installed as part of this contract. Alliant Energy will install a new pedestal located between the signal control cabinet (CB-2) and lighting control cabinet (L53-0902). Prior to installing the conduit, coordinate the location of the new pedestal with Alliant Energy. Provide excess conduit at the pad mounted transformer and pedestal so that Alliant Energy can connect the conduit to the pad mounted transformer and pedestal.

After final grading of the median area between the VB Ramp and VB1 Ramp is complete, Alliant Energy will install a new pedestal located between the signal control cabinet (CB-2) and lighting control cabinet (L53-0902). Alliant Energy will extend the electrical service from the pad mounted transformer at Station 288+75 AE RT to the pedestal in conduit installed as part of this contract. From the pedestal, Alliant Energy will direct bury two electrical services, one to the signal control

cabinet and another to the lighting control cabinet. Installation of the new pedestal and underground electrical service is expected to take one day to complete. Notify Alliant Energy at least three weeks in advance of completion of the final grade along Avalon Road.

The field contact is Jason Hogan, 4902 N. Biltmore Ln., Madison, WI 53718; office (608) 458-4871, mobile (608) 395-7395; e-mail: jasonhogan@alliantenergy.com.

30. Concrete Pavements.

Replace entire article language with the following:

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard specs 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

Replace 501.2.5.4.1 with the following:

- (1) Use clean, hard, durable crushed gravel or crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.
- (2) Use virgin aggregates only.

Replace the first paragraph of 501.2.5.4.2 with the following:

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

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale.....	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Chert ⁽¹⁾	2.0

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

Replace the first paragraph of 501.2.5.4.3 with the following:

- (1) The department will ensure that Los Angeles wear testing conforms to AASHTO T 96, soundness testing conforms to AASHTO T 104 using 5 cycles in sodium sulfate solution on aggregate retained on the No. 4 sieve, and freeze-thaw soundness testing conforms to AASHTO T 103. The percent wear must not exceed 40, the weighted soundness loss must not exceed 9 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

77. DELETED.

78. Notice to Contractor - Construction Safety

Description

This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

Definitions

Certified Crane Operator. To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating Engineers Certification Program (OECF).

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Critical Lift. A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

Project Safety Officer (PSO). The person or persons designated by the Department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Safety Representative (SR). A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

General Requirements

Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

Safety Representative Requirements

Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.

Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the Department at the beginning of the project and at least once every two years. The SR shall

communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

Requirements for Construction Health & Safety Programs

In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

Traffic Control and Vehicle Collision Prevention/Risk Reduction

All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights in accordance with Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions in accordance with the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

Personal Protective Equipment (PPE)

Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.

ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.

ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.

Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light ("miner's lamp").

Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

Walking and Working Surfaces

Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

Excessive Driving Hours/Extended Work Shifts

Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

Cranes and Hoists.

Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating Engineer Certification Program (OECF) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. Have a professional engineer, registered in the state of Wisconsin and knowledgeable of the specific site conditions and

requirements, verify the adequacy of the design. Submit one copy of each design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer's specifications for safe operation.

Documentation and Records

Maintain documents and records and ensure that they are readily available upon request. At a minimum this includes:

- a. Written Safety Plan for Work Activities to be Performed
- b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.
- c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).
- d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].
- e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The Department will provide a sign-in sheet template electronically.
- f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29]
- g. Project site OSHA 301 Incident Report (no worker names) [29 CFR 1904.29]
- h. Hazard Communication Program [29 CFR 1926.59]
 - i. Hazardous Chemical Inventory,
 - ii. Location of Safety Data Sheets (SDSs)
 - iii. Hazard Warning Symbols
 - iv. Information and training requirements.
- i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names)
- j. Crane operator certifications (if applicable)
- k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104]
- l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213]
- m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702]
- n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)]
- o. Emergency Action Plan [29 CFR 1926.35]
 - i. Emergency escape procedures and emergency escape route assignments
 - ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
 - iii. Procedures to account for all employees after emergency evacuation has been completed
 - iv. Rescue and medical duties for those employees who are to perform them;
 - First Aid and Medical Treatment Procedures [29 CFR 1926.50]
 - Equipment and Supplies
 - Names of persons certified in first aid
 - Location of the nearest medical facility.
 - v. The preferred means of reporting fires and other emergencies
 - vi. Prime contractor's alarm system
 - vii. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.
- p. Fire Protection Program (if applicable) [29 CFR 1926.150]
- q. Fire Prevention Plan and Hot Work Permit procedures (if applicable) [29CFR 1926.352]

79. 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 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. Obtain the CMM from the department's web site at:
<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>
- (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/mrs>

B Materials

B.1 Personnel

- (1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.
- (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.2 Testing

- (1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

- (1) Furnish nuclear gauges from the department's approved product list at
<http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm>.
- (2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.
- (3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:
Materials Management Section
3502 Kinsman Blvd.

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

- (1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.
- (2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.
- (3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft^3 . Measure and record the density on the 5 additional test sites for each gauge.
- (4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft^3 and repeat correlation process from B.3.2.1 (2).
- (5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

B.3.2.2 Correlation Monitoring

- (1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.
- (2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.
- (3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 of its reference value established in B.3.2.2(2).
- (4) Maintain the reference site test data for each gauge at an agreed location.

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) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.
- (2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.
- (3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

- (4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full subplot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate subplot for that partial quantity.
- (5) Randomly select test locations for each subplot as specified in CMM 8.15 prior to paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests prior to opening the roadway to traffic.
- (6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

Lane Width	No. of Tests	Transverse Location
5 ft or less	1	Random
Greater than 5 ft to 9 ft	2	Random within 2 equal widths
Greater than 9 ft	3	Random within 3 equal widths

Table 1

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

- (1) A lot represents a combination of the total daily tonnage for each layer and target density.
- (2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one subplot for each layer.
- (3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.
- (4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per subplot and perform the number of random tests as specified in Table 2.

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
25 to 100 tons	1
101 to 250 tons	3
251 to 500 tons	5
501 to 750 tons	7

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

- (1) Calculate the average subplot densities using the individual test results in each subplot.
- (2) If all subplot 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 subplot average is more than one percent below the target density, do not include the individual test results from that subplot when computing the lot average density and remove that subplot's tonnage from the daily quantity for incentive. The tonnage from any such subplot is subject to disincentive pay according to 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 subplot 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 subplot 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 subplot. Testing in a previously accepted subplot 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 subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be according to 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 subplot and lot densities.
- (6) If 2 consecutive subplot 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 subplots 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 subplots and a minimum of one subplot per mix design. The subplots 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 subplot using the same testing requirements and frequencies as the QC tester.

- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft³ 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 correlation according to B.3.2.1.
- (2) The testers may use correlation 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 subplot density test results or retesting of the subplot 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-correlated 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 according to standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

- (1) Delete standard spec 460.5.2.3.
- (2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or -0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

Percent Lot Density Above Minimum	Pay Adjustment Per Ton
From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

- (3) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount shown on the schedule of items.
- (4) If a traffic lane meets the requirements for disincentive, the department will not pay incentive on the integrally paved shoulder.
- (5) Submit density results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.

460-020 (20100709)

80. Install Conduit into Existing Item, 652.0700.S

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use 2-inch and 3-inch nonmetallic conduit as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department will measure Install Conduit Into Existing Item by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	Each

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.
652-070 (20100709)

Schedule of Items

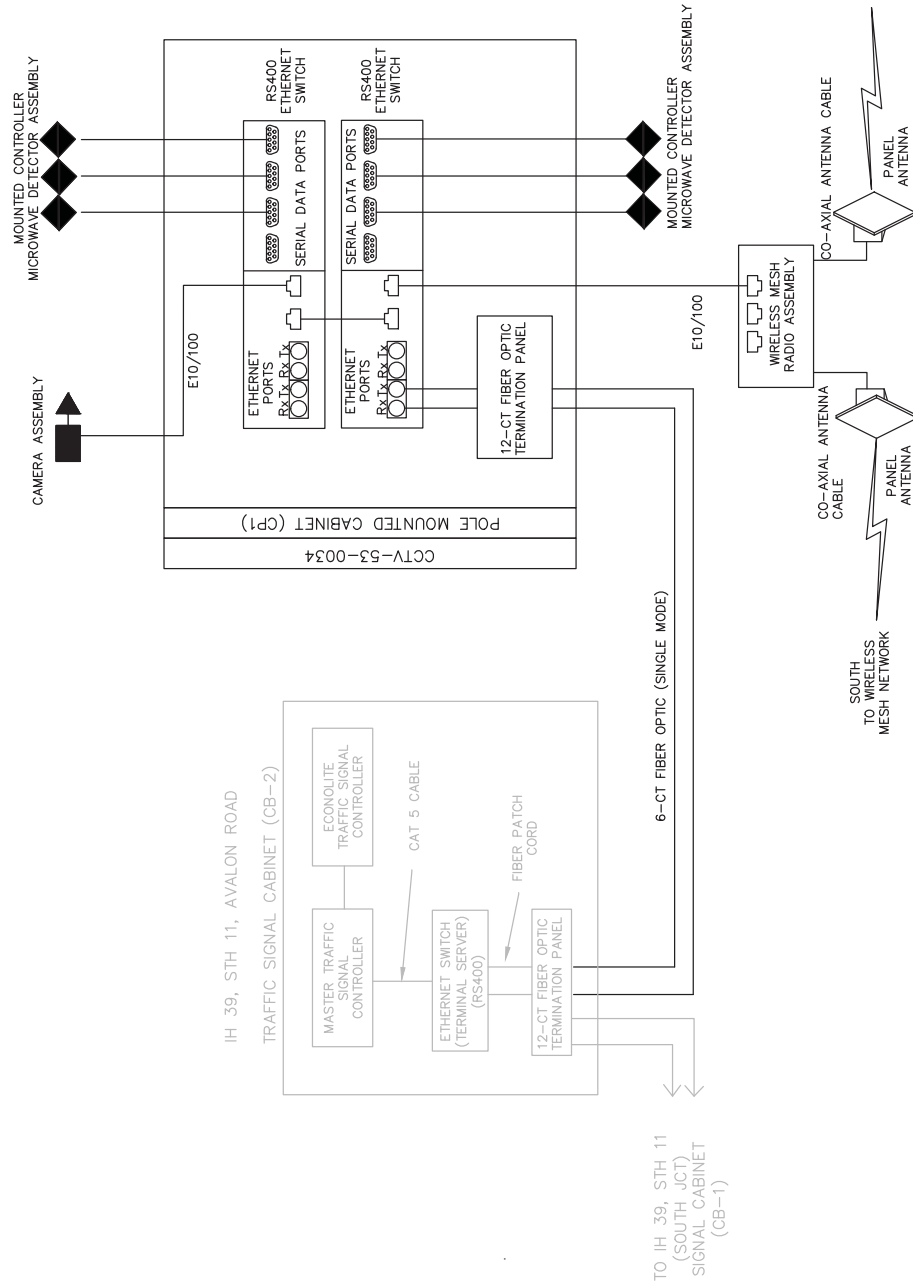
Attached, dated August 3, 2015, are the revised Schedule of Items Pages 21, 23, 27, 29, and 31.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 135, 142, 143, 150, 323, 325, 348, and 357 - 359.
Added: 135A and 142A.

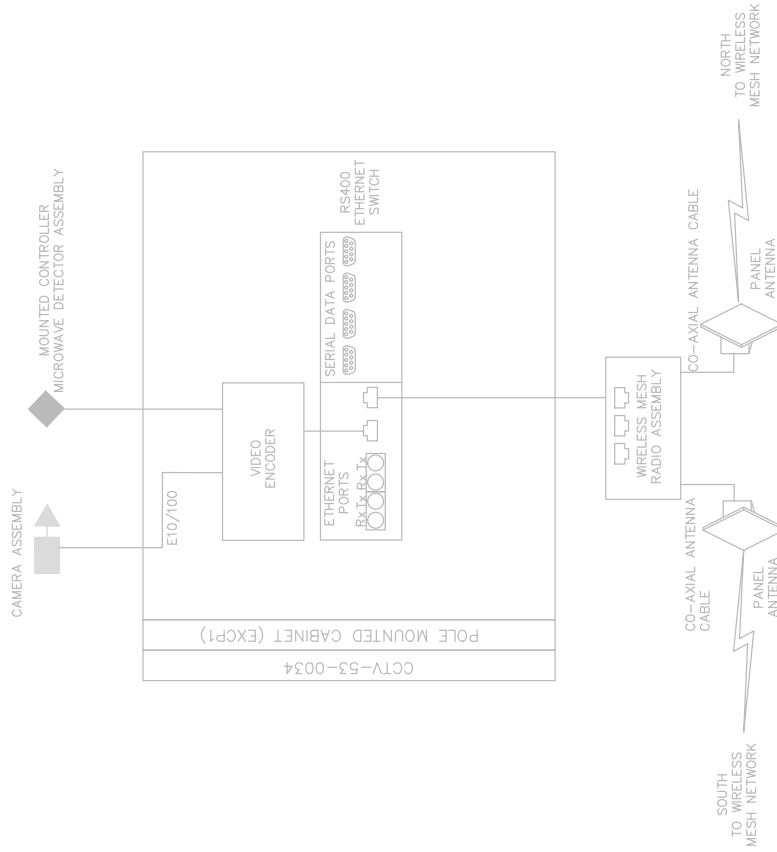
END OF ADDENDUM

Addendum No. 02
 ID 1003-10-72
 Revised Sheet 135
 August 3, 2015



ITS COMMUNICATION SCHEMATIC
 FINAL CONDITION

Addendum No. 02
 ID 1003-10-72
 Added Sheet 135A
 August 3, 2015



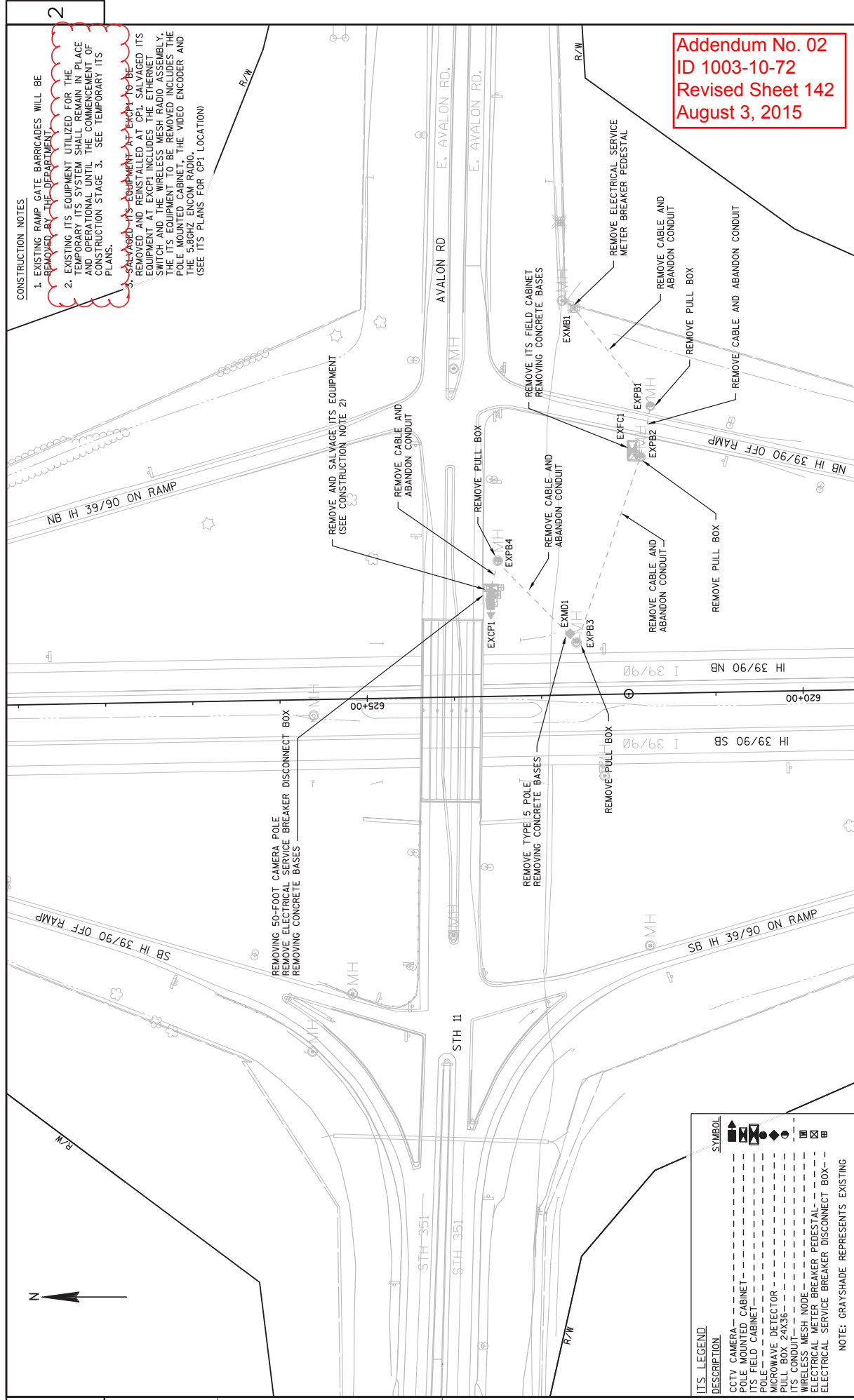
ITS COMMUNICATION SCHEMATIC
EXISTING AND TEMPORARY

PROJECT NO: 1003-10-72	COUNTY: ROCK	SHEET 135A	E
HWY: IH 39	ITS COMMUNICATION SCHEMATICS	PLOT SCALE : 1 IN:10 FT	WISDOT/CADD SHEET 42
FILE NAME : L:\WORK\PROJECTS\60242667\400_TECHNICAL\406-CIVIL\406.3-ITS\AVALON RD\DETAILS & SCHEMATICS\COMM SCHEMATICS.DWG	PLOT DATE : 7/14/2015 3:21 PM	PLOT BY : MELENDEZ, WILLIAM	PLOT NAME :

CONSTRUCTION NOTES

- EXISTING RAMP GATE BARRICADES WILL BE REMOVED BY THE DEPARTMENT.
- EXISTING ITS EQUIPMENT UTILIZED FOR THE TEMPORARY ITS SYSTEM SHALL REMAIN IN PLACE AND OPERATIONAL UNTIL THE COMMENCEMENT OF CONSTRUCTION STAGE 3. SEE TEMPORARY ITS PLANS.
- SALVAGED ITS EQUIPMENT AT EXH1 TO BE REUSED AT EXH2. SALVAGED ITS EQUIPMENT AT EXH2 TO BE REUSED AT EXH1. THE WIRELESS MESH RADIO ASSEMBLY, SWITCH AND THE WIRELESS RADIO ASSEMBLY. THE ITS EQUIPMENT TO BE REMOVED INCLUDES THE POLE MOUNTED CABINET, THE VIDEO ENCODER AND THE 5.8GHZ ENCOM RADIO. (SEE ITS PLANS FOR CP1 LOCATION)

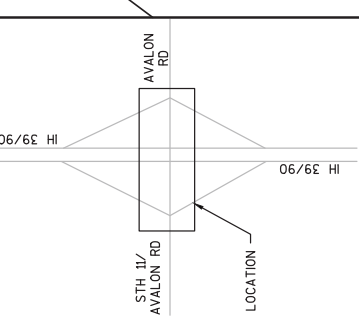
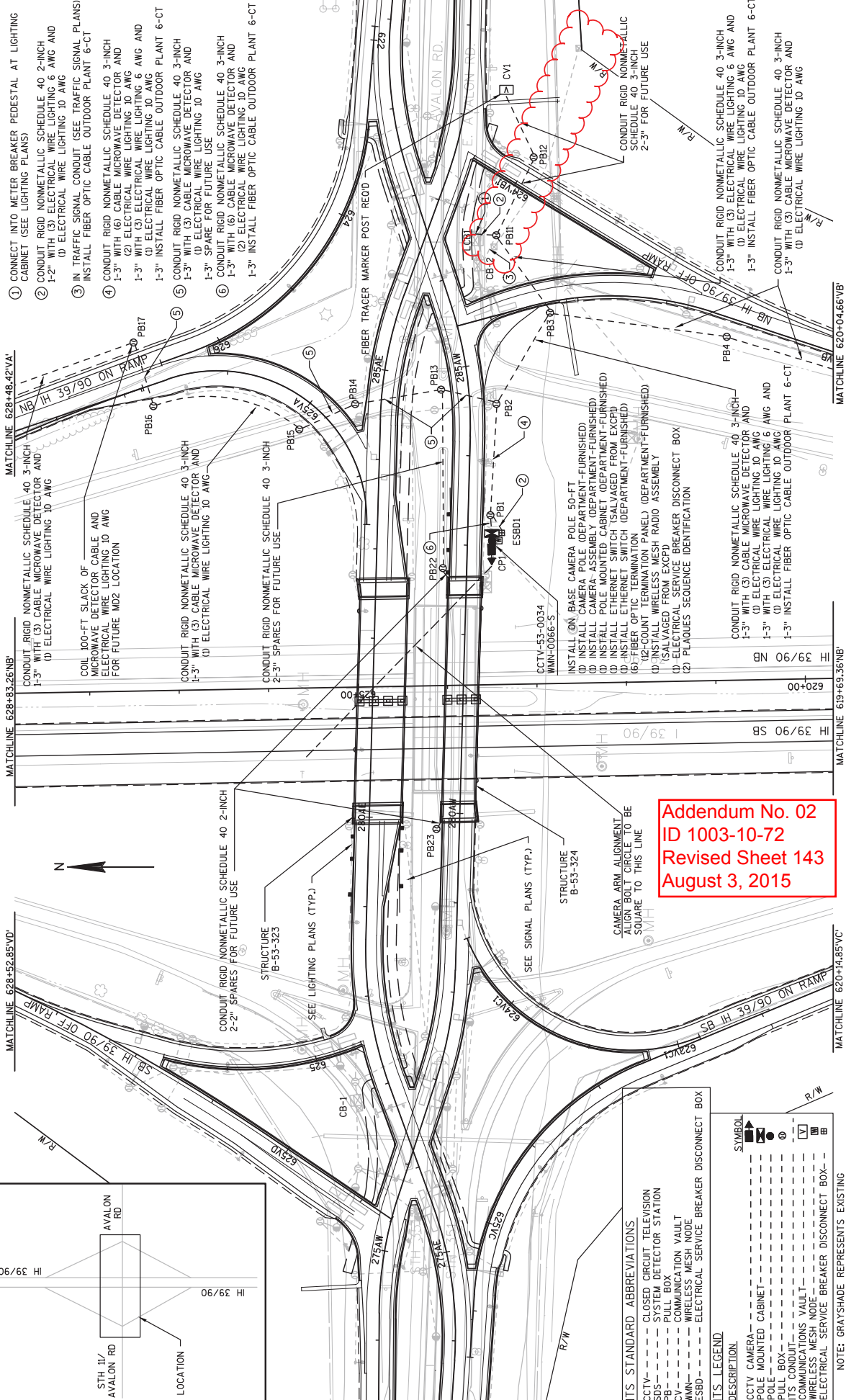
Addendum No. 02
 ID 1003-10-72
 Revised Sheet 142
 August 3, 2015



ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	[Symbol]
POLE MOUNTED CABINET	[Symbol]
ITS FIELD CABINET	[Symbol]
POLE	[Symbol]
MICROWAVE DETECTOR	[Symbol]
PULL BOX 24X36	[Symbol]
ITS CONDUIT	[Symbol]
WIRELESS MESH NODE	[Symbol]
ELECTRICAL METER BREAKER PEDESTAL	[Symbol]
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	[Symbol]

NOTE: GRAYSHADE REPRESENTS EXISTING



- 1 CONNECT INTO METER BREAKER PEDESTAL AT LIGHTING CABINET (SEE LIGHTING PLANS)
- 2 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH 1-3" WITH (3) ELECTRICAL WIRE LIGHTING 6 AWG AND (3) ELECTRICAL WIRE LIGHTING 10 AWG
- 3 IN TRAFFIC SIGNAL CONDUIT (SEE TRAFFIC SIGNAL PLANS) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
- 4 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH 1-3" WITH (6) CABLE MICROWAVE DETECTOR AND (2) ELECTRICAL WIRE LIGHTING 10 AWG AND (3) ELECTRICAL WIRE LIGHTING 6 AWG AND 1-3" INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
- 5 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH 1-3" WITH (3) CABLE MICROWAVE DETECTOR AND (3) ELECTRICAL WIRE LIGHTING 10 AWG 1-3" SPARE FOR FUTURE USE
- 6 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH 1-3" WITH (6) CABLE MICROWAVE DETECTOR AND (2) ELECTRICAL WIRE LIGHTING 10 AWG 1-3" INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

ITS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION
SDS	SYSTEM DETECTOR STATION
PB	PULL BOX
CMV	COMMUNICATION VAULT
WMA	WIRELESS MESH NODE
ESBD	ELECTRICAL SERVICE BREAKER DISCONNECT BOX

ITS LEGEND

SYMBOL	DESCRIPTION
[Symbol]	CCTV CAMERA
[Symbol]	POLE MOUNTED CABINET
[Symbol]	PULL BOX
[Symbol]	COMMUNICATION VAULT
[Symbol]	WIRELESS MESH NODE
[Symbol]	ELECTRICAL SERVICE BREAKER DISCONNECT BOX

Addendum No. 02
 ID 1003-10-72
 Revised Sheet 143
 August 3, 2015

PAVEMENT FOR TRAFFIC STAGING SUMMARY

CATEGORY	STAGE	STATION	STATION	LOCATION	*305.0110		*305.0120		*312.0115		*455.0106		*455.0806		*460.1103		*460.1110		*460.1130		*624.0100			
					BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	SELECT CRUSHED MATERIAL TON	ASPHALTIC MATERIAL PG 58-28 TON	ASPHALTIC MATERIAL PG 64-28 TON	TACK COAT GAL	HMA PAVEMENT TYPE E-3 TON	HMA PAVEMENT TYPE E-10 TON	HMA PAVEMENT TYPE E-30 TON	HMA COLD WEATHER PAVING TON	WATER MGA									
1000	1	255+60.00 AE	- 261+00.00 AE	LT	---	835	1,110	17	---	---	90	315	---	---	---	---	---	---	---	---	---	19.5		
		274+88.18 AE	- 277+81.22 AW	LT & RT	---	170	230	4	---	---	---	20	65	---	---	---	---	---	---	---	---	4.0		
		276+55.69 AW	- 277+81.22 AW	RT	---	140	185	3	---	---	---	15	50	---	---	---	---	---	---	---	---	3.3		
		276+00.00 AE	- 278+12.69 AE	LT & RT	---	---	1,000	16	---	---	---	750	285	---	---	---	---	---	---	---	---	---	17.5	
		278+28.29 AW	- 279+91.96 AW	RT	---	75	100	2	---	---	---	8	30	---	---	---	---	---	---	---	---	---	1.8	
		278+58.18 AW	- 280+02.51 AW	LT	---	15	160	3	---	---	---	15	45	---	---	---	---	---	---	---	---	---	1.8	
		282+51.03 AW	- 284+08.43 AW	LT	---	130	170	3	---	---	---	15	50	---	---	---	---	---	---	---	---	---	3.0	
		282+50.16 AW	- 284+74.87 AW	RT	---	480	640	10	---	---	---	50	180	---	---	---	---	---	---	---	---	---	11.2	
		627+41.99 VAX1	- 635+63.94 VAX1	LT	---	115	1,055	11	---	---	---	55	---	---	---	---	---	---	---	---	---	---	---	
		627+41.99 VAX1	- 632+22.96 VAX1	SHOULDER LT	---	---	---	2	---	---	---	35	---	---	---	---	---	---	---	---	---	---	---	
1A	1A	629+77.61 VAX1	- 635+83.94 VAX1	SHOULDER RT	---	---	5	---	---	---	23	---	---	---	---	---	---	---	---	---	---	---		
		634+00.00 VDX1	- 636+34.50 VDX1	LT & RT	---	630	---	8	---	---	40	---	---	---	---	---	---	---	---	---	---	6.8		
		613+49.34 VBX1	- 619+22.29 VBX1	RT	---	70	940	12	---	---	---	50	---	---	---	---	---	---	---	---	---	10.1		
		612+27.46 VCX1	- 614+50.00 VCX1	LT & RT	---	45	670	9	---	---	---	60	---	---	---	---	---	---	---	---	---	---	7.2	
		SUBTOTALS (STAGE 1)					280	5,890	105	3,956	0	532	1,020	870	0	0	0	0	0	0	0	0	86.2	
		590+00.00 TW_SB	- 658+79.24 TW_SB	RT	---	630	13,115	105	---	---	---	65	610	---	---	---	3,150	---	---	---	---	---	---	137.5
		616+85.00 TW_SB	- 628+15.00 TW_SB	RT	---	8	1,410	---	---	---	---	23	10	---	---	---	---	---	---	---	---	---	---	14.1
		UNDISTRIBUTED					---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		SUBTOTALS (STAGE 1A)					638	14,325	0	105	88	620	0	410	3,150	1,000	1,000	151.6	---	---	---	---	---	---
		1B	1B	600+92.04 TW_SB	- 612+26.08 TW_SB	LT	---	115	5,080	---	---	---	300	---	---	---	1,570	---	---	---	---	---	---	52.0
619+96.96 TW_SB	- 623+31.10 TW_SB			LT	---	100	3,900	35	---	---	205	---	---	---	1,065	---	---	---	---	---	---	36.0		
625+52.69 TW_SB	- 631+64.68 TW_SB			LT	---	55	2,990	---	---	---	---	160	---	---	---	840	---	---	---	---	---	---	26.4	
636+34.55 VD	- 646+24.38 TW_SB			LT	---	135	4,710	---	---	---	---	50	---	---	---	1,450	---	---	---	---	---	---	48.5	
600+92.04 TW_SB	- 607+53.00 TW_SB			RUMBLE STRIP SB OUTSIDE SH	---	---	---	---	---	---	---	10	---	---	---	15	---	---	---	---	---	---	---	
613+48.00 TW_SB	- 638+73.00 TW_SB			RUMBLE STRIP SB OUTSIDE SH	---	---	---	---	---	---	---	3	---	---	---	50	---	---	---	---	---	---	---	
642+00.00 TW_SB	- 646+24.00 TW_SB			RUMBLE STRIP SB OUTSIDE SH	---	---	---	---	---	---	---	7	---	---	---	10	---	---	---	---	---	---	---	
SUBTOTALS (STAGE 1B)					405	15,870	0	170	145	982	0	0	5,000	0	162.9	---	---	---	---	---	---	---		
2A	2A			273+20.75 AE	- 275+51.99 AE	LT	---	565	750	12	---	---	60	215	---	---	---	---	---	---	---	---	---	5.7
				284+84.81 AW	- 285+93.15 AW	LT & RT	---	---	370	6	---	---	29	105	---	---	---	---	---	---	---	---	---	2.8
		285+65.38 AW	- 622+16.54 VB	RT	---	510	680	11	---	---	---	156	---	---	---	---	---	---	---	---	---	---		
		285+38.75 AE	- 287+90.55 AW	LT	---	---	840	17	---	---	---	88	320	---	---	---	---	---	---	---	---	---	8.4	
		SUBTOTALS (STAGE 2A)					0	2,195	2,920	46	0	231	855	0	0	0	0	22.0	---	---	---	---	---	
2B	2B	275+45.70 AW	- 277+49.02 AE	LT	---	385	525	8	---	---	42	150	---	---	---	---	---	---	---	---	---	9.2		
		276+80.53 AE	- 278+28.16 AE	RT	---	335	430	7	---	---	35	125	---	---	---	---	---	---	---	---	---	---	7.7	
		277+54.54 AW	- 277+81.22 AW	RT	---	120	160	3	---	---	---	13	45	---	---	---	---	---	---	---	---	---	2.8	
		284+30.61 AE	- 285+38.75 AE	LT	---	---	70	2	---	---	---	8	30	---	---	---	---	---	---	---	---	---	1.7	
		624+00.17 VD	- 626+45.77 VD	RT	---	600	795	12	---	---	---	630	225	---	---	---	---	---	---	---	---	---	14.0	
SUBTOTALS (STAGE 2B)					0	1,520	2,005	32	0	728	575	0	0	0	0	35.7	---	---	---	---	---	---		
3A	3A	275+83.53 AE	- 622+34.76 VC	RT	---	470	625	25	---	---	50	180	---	---	---	---	---	---	---	---	---	11.0		
		SUBTOTALS (STAGE 3A)					0	470	625	25	0	50	180	0	0	0	0	0	0	0	0	11.0		
3B	3B	623+31.10 TW_SB	- 625+32.69 TW_SB	LT	---	20	935	10	---	---	60	---	---	---	305	---	---	---	---	---	---	9.6		
		609+31.43 TW_SB	- 616+96.96 TW_SB	LT	---	30	2,025	25	---	---	135	700	---	---	---	---	---	---	---	---	---	---	20.7	
		613+64.68 TW_SB	- 636+35.00 TW_SB	LT	---	210	3,150	20	---	---	---	125	---	---	---	645	---	---	---	---	---	---	33.6	
		636+35.00 TW_SB	- 640+57.64 TW_SB	LT	---	40	1,515	15	---	---	---	80	---	---	---	435	---	---	---	---	---	---	15.6	
		UNDISTRIBUTED					---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		SUBTOTALS (STAGE 3B)					300	7,625	0	70	45	125	0	0	2,065	1,000	79.9	---	---	---	---	---	---	---
TOTALS					1,623	48,095	9,145	563	278	3,278	2,610	1,280	10,235	2,000	548.9	---	---	---	---	---	---	---	---	

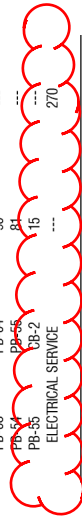
*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

Addendum No. 02
ID 1003-10-72
Revised Sheet 325
August 3, 2015

Addendum No. 02
ID 1003-10-72
Revised Sheet 348
August 3, 2015

TRAFFIC SIGNAL CONDUIT SUMMARY (CONT.)

CATEGORY	INTERSECTION	LOCATION		*652.0225		*652.0235	
		FROM	TO	CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH	LF	CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH	LF
1000	I-39/90 & STH 11 & AVALON ROAD	PB-32	PB-31	31	---	---	---
		PB-32	PB-33	---	---	---	170
		SB-21	SB-20	29	---	---	---
		PB-33	PB-34	12	---	---	---
		PB-33	PB-35	33	---	---	---
		PB-33	PB-41	---	---	---	110
		PB-41	PB-42	66	---	---	---
		PB-42	PB-43	66	---	---	---
		PB-43	PB-44	155	---	---	---
		PB-35	PB-36	---	---	---	48
		PB-44	BRIDGE	68	---	---	---
		PB-36	SB-22	23	---	---	---
		PB-36	PB-37	26	---	---	---
		PB-36	PB-38	---	---	---	140
		PB-36	PB-38	6	---	---	---
		PB-36	SB-24	19	---	---	---
		PB-38	CB-2	---	---	---	66
		PB-38	SB-14	27	---	---	---
		PB-38	SB-13	16	---	---	---
		PB-38	PB-45	16	---	---	---
		PB-45	PB-46	170	---	---	---
		PB-46	PB-47	---	---	---	74
		PB-46	PB-48	---	---	---	---
		PB-47	PB-49	270	---	---	---
		PB-49	ITS PB	40	---	---	---
		PB-44	PB-53	190	---	---	---
		PB-54	PB-54	95	---	---	---
		PB-54	PB-55	81	---	---	---
		PB-55	CB-2	15	---	---	---
		CB-2	ELECTRICAL SERVICE	---	---	---	270
SUBTOTALS				1,949	---	1,822	
TOTALS				3,764	---	2,755	



* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL CONDUIT SUMMARY

CATEGORY	INTERSECTION	LOCATION		*652.0225		*652.0235	
		FROM	TO	CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH	LF	CONDUIT RIGID NON METALLIC SCHEDULE 40 3-INCH	LF
1000	I-39/90 & STH 11 (SOUTH JCT)	CB-1	PB-1	---	---	---	215
		PB-1	PB-3	73	---	---	---
		PB-2	PB-2	22	---	---	---
		PB-1	PB-5	150	---	---	---
		PB-3	SB-3	24	---	---	---
		PB-3	SB-4	43	---	---	---
		PB-3	PB-4	20	---	---	---
		PB-5	SB-6	36	---	---	---
		PB-5	SB-5	66	---	---	---
		PB-5	PB-6	11	---	---	---
		PB-5	SB-7	5	---	---	---
		PB-5	PB-8	135	---	---	130
		PB-6	PB-16	---	---	---	---
		PB-16	PB-17	190	---	---	---
		PB-8	PB-7	20	---	---	---
		PB-8	SB-8	25	---	---	---
		PB-8	SB-9	46	---	---	---
		PB-8	PB-9	---	---	---	210
		PB-9	PB-10	37	---	---	---
		PB-9	PB-11	---	---	---	110
		PB-18	PB-18	63	---	---	---
		PB-18	PB-19	53	---	---	---
		PB-11	PB-12	68	---	---	64
		PB-21	BRIDGE	145	---	---	---
		PB-12	PB-20	39	---	---	---
		PB-12	SB-12	23	---	---	---
		PB-12	PB-14	---	---	---	130
		PB-12	PB-13	40	---	---	---
		PB-12	SB-10	39	---	---	---
		PB-14	CB-1	---	---	---	60
PB-14	SB-2	43	---	---	---		
PB-14	SB-1	33	---	---	---		
PB-14	PB-15	25	---	---	---		
PB-22	PB-22	190	---	---	---		
PB-22	PB-23	---	---	---	35		
PB-22	PB-25	---	---	---	56		
PB-23	PB-24	43	---	---	---		
PB-50	PB-50	20	---	---	---		
PB-51	PB-51	56	---	---	---		
PB-52	PB-52	155	---	---	---		
PB-52	PB-21	100	---	---	---		
SUBTOTALS				1,815	---	1,233	

(CONT. ABOVE)

Addendum No. 02
ID 1003-10-72
Revised Sheet 357
August 3, 2015

SAVING ASPHALT

CATEGORY	STAGE	STATION	LOCATION	LF
1000	1	631+20 VA - 635+88 VA 631+86 VB - 616+60 VB	LT LT	468 304
SUBTOTAL (STAGE 1)				
				772
2A		261+00 AW 275+85 AW 307+14 AE 11+50 R	LT LT LT & RT LT & RT	6 10 25 40
SUBTOTAL (STAGE 2A)				
				81
2B		631+13 VA 616+62 VB 631+85 VD	LT LT LT	8 8 8
SUBTOTAL (STAGE 2B)				
				24
3A		261+00 AE 623+18 VC	RT RT	6 8
SUBTOTAL (STAGE 3A)				
				14
TOTAL				
				881

SAVING CONCRETE

CATEGORY	STAGE	STATION - STATION	LOCATION	LF
1000	1A	590+00 TW_SB - 658+79 TW_SB 616+85 TW_SB - 628+15 TW_SB	RT RT	6,879 1,130
SUBTOTAL (STAGE 1A)				
				8,009
1B		600+92 TW_SB - 612+26 TW_SB 615+57 TW_SB - 623+31 TW_SB	LT LT	1,134 774
SUBTOTAL (STAGE 1B)				
				1,908
2A		261+00 AW 275+85 AW 307+14 AE 11+50 R	LT LT LT & RT LT & RT	6 10 25 40
SUBTOTAL (STAGE 2A)				
				81
2B		631+13 VA 616+62 VB 631+85 VD	LT LT LT	8 8 8
SUBTOTAL (STAGE 2B)				
				24
3A		261+00 AE 623+18 VC	RT RT	6 8
SUBTOTAL (STAGE 3A)				
				14
TOTAL				
				119
2A		640+57 TW_SB - 646+21 TW_SB	LT	584
SUBTOTAL (STAGE 1B)				
				703
2A		261+00 AW 262+88 AW - 263+66 AW 266+05 - 266+62 AW 275+85 AW 275+93 AW 284+81 AW 11+50 R	LT & RT RT RT LT & RT RT LT & RT LT & RT	33 78 56 13 23 23 6
SUBTOTAL (STAGE 2A)				
				358
2B		277+18 AE - 277+76 AE 631+13 VA 616+62 VB 631+85 VD	RT LT LT LT	60 15 15 15
SUBTOTAL (STAGE 2B)				
				105
3A		261+00 AE 277+37 AW 278+26 AW 623+18 VC	LT & RT RT LT & RT RT	41 21 60 18
SUBTOTAL (STAGE 3A)				
				140
3B		613+47 TW_SB - 616+57 TW_SB 623+31 TW_SB - 626+52 TW_SB 631+65 TW_SB - 633+73 TW_SB 635+51 TW_SB - 640+58 TW_SB 639+31 VC	LT LT LT LT LT	210 221 208 507 15
SUBTOTAL (STAGE 3B)				
				1,161
TOTAL				
				12,503

ABANDONING CULVERT PIPE SPECIAL

CATEGORY	STAGE	STATION	LOCATION	CY	REMARKS
1000	1	276+34 AE 287+37 AE	LT & RT LT & RT	25 25	24" X 200 RCCP 24" X 200 RCCP
SUBTOTAL (STAGE 1)					
				50	
3B		616+65 VC	RT	15	24" X 100 RCCP
SUBTOTAL (STAGE 3B)					
				15	
TOTAL					
				65	

CPM PROGRESS SCHEDULE

CATEGORY	PROJECT	EACH	REVISIONS
1000	1003-10-72	1	14

TEMPORARY INLET CASTING

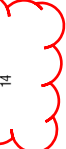
CATEGORY	STAGE	STATION	LOCATION	EACH
1000	1	255+69 AW	RT	1
WEIR WALL				

TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN, PERMANENT

CATEGORY	LOCATION	EACH
1000	130B 140B 270B 280B	1 1 1 1
TOTAL		
		4

REMOVING CONCRETE MEDIAN B-53-144

CATEGORY	STAGE	STATION - STATION	SY
1000	STAGE 1	280+09 AW - 283+08 AW	550



ITS REMOVAL ITEMS

ITEM	STATION	OFFSET	EA	REMOVING CONCRETE BASES	REMOVING PULL BOXES	REMOVING 50-FOOT CAMERA POLE	REMOVING ITS FIELD CABINET	DISCONNECT BOX	REMOVING METER BREAKER	REMOVING ELECTRICAL SERVICE	REMOVING ITS EQUIPMENT	REMOVING TYPE 5 POLE	REMOVING WOOD POLE	REMOVING SOLAR-POWERED BLUETOOTH SENSOR	EA
EXCP1	623+56 NB 117' RT		1			1					1				
EXFC1	621+91 NB 279' RT		1				1								
EXMD1	622+66 NB 70' RT		1									1			
EXMB1	622+55 NB 443' RT		1												
EXMP1	652+26 NB 118' LT													1	
EXPB1	621+69 NB 330' RT		1												
EXPB2	621+81 NB 272' RT		1												
EXPB3	622+59 NB 60' RT		1												
EXPB4	623+47 NB 155' RT		1												
TEMPORARY ITS															
MB1	622+41 NB 710' RT							1							1
PROJECT TOTALS			3	4	1	1	1	1	2	1	1	1	1	1	1

* ADDITIONAL ITEMS FOR QUANTITIES LISTED IN OTHER LIGHTING AND TRAFFIC SIGNAL MISCELLANEOUS QUANTITIES SHEETS

ITS CONDUIT AND CABLE ITEMS

FROM	TO	LINEAR DISTANCE LF	WIRE	CONDUITS	NUMBER OF LIGHTING WIRES	NUMBER OF MICROWAVE DETECTOR LIGHTING WIRES	NUMBER OF CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH CABLES	NUMBER OF CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	INSTALL CONDUIT INTO EXISTING ITEM	652.0700.5	655.0615	655.0625	674.0200	678.0006	678.0400
MB1	EXPB1	390	25	1	3		390		1				1245		
EXPB1	EXPB2	60	17		3								231		
EXPB2	EXPCL	10	8		3								54		
LCB1	PB11	25	27	1	3						32		136		
PB11	PB12	105	17	1	1								67		
PB12	PB13	120	17	3	3								366		
PB13	PB14	140	17	3	3								411		
PB14	CP1	30	10	2	6								471		
PB1	ESBD1	30	10	1	3								80		6
PB3	PB4	215	17	1	1								40		
PB4	PB5	245	17	1	1								120		
PB5	PB6	50	17	1	1								232		
PB6	PB7	205	17	1	1								262		
PB7	PB8	205	117	1	1								201		
PB8	PB9	175	17	1	1								666		
PB9	PB10	120	17	1	1								966		
MD1	MD1	25	25	1	1								576		
PB13	PB13	65	17	2	3								411		
PB14	PB14	90	17	2	1								137		
PB15	PB15	70	17	2	1								82		
PB16	PB16	175	17	1	1								130		
PB17	PB17	75	117	2	1								107		
PB18	PB18	250	117	1	1								261		
PB19	PB19	210	17	1	3								192		
PB20	PB20	20	17	1	3								576		
PB21	PB21	25	17	1	1								192		
PB22	PB22	25	25	1	1								367		
PB23	PB23	200	200	2	2								1101		
BRIDGE	BRIDGE	10		2	20								981		
PB11	PB12	100		2	20								276		
PB12	CV1	80		2	160								92		
PROJECT TOTALS				485	4635				1		4286		3054		523

* ADDITIONAL ITEMS FOR QUANTITIES LISTED IN OTHER LIGHTING AND TRAFFIC SIGNAL MISCELLANEOUS QUANTITIES SHEETS

PROJECT NO: 1003-10-72 HWY: IH 39 COUNTY: ROCK MISCELLANEOUS QUANTITIES SHEET 358

Addendum No. 02
ID 1003-10-72
Revised Sheet 358
August 3, 2015

ITS PULL BOX & COMMUNICATION VAULT ITEMS

ITEM	STATION	OFFSET	EA	DESCRIPTION	EA
CATEGORY 1200					
PROJECT 1003-10-72					
PB1	283+34 'AM'	25' RT	1	PULL BOXES COMMUNICATION	1
PB2	284+56 'AM'	30' RT	1	STEEL VAULT TYPE 1	1
PB3	623+33 'VB'	12' LT	1	FIBER TRACER MARKER POST	1
PB4	621+24 'VB'	21' LT	1		1
PB5	618+81 'VB'	15' LT	1		1
PB6	618+80 'VB'	33' RT	1		1
PB7	616+80 'VB'	34' RT	1		1
PB8	614+74 'VB'	33' RT	1		1
PB9	613+04 'NB'	131' RT	1		1
PB10	611+90 'NB'	100' RT	1		1
PB11	286+29 'AM'	72' RT	1		1
PB12	287+72 'AE'	87' RT	1		1
PB13	284+77 'AM'	30' LT	1		1
PB14	284+60 'AE'	29' LT	1		1
PB15	624+89 'VA'	30' LT	1		1
PB16	627+23 'NB'	318' RT	1		1
PB17	627+44 'NB'	389' RT	1		1
PB18	629+40 'VA'	47' RT	1		1
PB19	633+46 'NB'	115' RT	1		1
PB20	634+61 'NB'	102' RT	1		1
PB22	282+74 'AM'	26' LT	1		1
PB23	279+82 'AM'	25' LT	1		1
CV1	288+32 'AE'	43' RT	1		1
PROJECT TOTALS			23		1

* ADDITIONAL ITEMS FOR QUANTITIES LISTED IN OTHER LIGHTING AND TRAFFIC SIGNAL MISCELLANEOUS QUANTITIES SHEETS

ITS ITEMS

ITEM	STATION	OFFSET	EA	DESCRIPTION	EA
CATEGORY 1200					
PROJECT 1003-10-72					
TEMPORARY ITS	622+41 'NB'	710' RT	1	INSTALL MOUNTED CONTROLLER MICROPHONE DETECTOR ASSEMBLY SWITCH	1
PERMANENT ITS	283+06 'AM'	281' RT	2	INSTALL MOUNTED CAMERA WIRELESS MESH RADIO ASSEMBLY	2
ESB01	283+06 'AM'	281' RT	1		1
MD1	611+65 'NB'	9' LT	3		3
MD2	634+82 'NB'	22' LT	2		2
PROJECT TOTALS			1	5	6

PROJECT NO: 1003-10-72

HWY: IH 39

COUNTY: ROCK

MISCELLANEOUS QUANTITIES

SHEET 359

E

ITS POLES AND BASES

ITEM	STATION	OFFSET	EA	DESCRIPTION	EA
CATEGORY 1200					
PROJECT 1003-10-72					
CP1	283+05 'AM'	78' RT	1	CONCRETE TRANSFORMER BASES	1
MD1	611+65 'NB'	105' RT	1	POLES TYPE 5	1
MD2	634+82 'NB'	95' RT	1	CAMERA POLE 50-FT	1
PROJECT TOTALS			2	2	2

* ADDITIONAL ITEMS FOR QUANTITIES LISTED IN OTHER LIGHTING AND TRAFFIC SIGNAL MISCELLANEOUS QUANTITIES SHEETS

ITS MISCELLANEOUS ITEMS

ITEM	STATION	OFFSET	EA	DESCRIPTION	EA
CATEGORY 1200					
PROJECT 1003-10-72					
TH 39/90 & AVALON RD			1	FIELD INTEGRATOR DOCUMENTATION TESTING	1
PROJECT TOTAL			1	1	1

Addendum No. 02
ID 1003-10-72
Revised Sheet 359
August 3, 2015

ITS CABLE REMOVALS

ITEM	EA
674.0300 REMOVE CABLE LF	146
EXB1 - EXPB1	60
EXFC1 - EXPB2	12
EXB2 - EXPB3	230
EXB3 - EXMD1	15
EXB4 - EXPB4	130
EXB4 - EXPB1	78
TEMPORARY ITS	
MB1 - EXPB1	1245
EXB1 - EXPB2	231
EXB2 - EXFC1	54
2163	

MISCELLANEOUS QUANTITIES

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150811001PROJECT(S):
1003-10-72FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2150	649.0701 Temporary Pavement Marking 8-Inch	1,462.000 LF	.	.	.	.
2160	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	2,558.000 LF	.	.	.	.
2170	649.1200 Temporary Pavement Marking Stop Line Removable Tape 18-Inch	89.000 LF	.	.	.	.
2180	652.0125 Conduit Rigid Metallic 2-Inch **p**	96.000 LF	.	.	.	.
2190	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch **p**	11,930.000 LF	.	.	.	.
2200	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch **p**	7,778.000 LF	.	.	.	.
2210	652.0800 Conduit Loop Detector	3,136.000 LF	.	.	.	.
2220	653.0135 Pull Boxes Steel 24x36-Inch	25.000 EACH	.	.	.	.
2230	653.0140 Pull Boxes Steel 24x42-Inch	79.000 EACH	.	.	.	.
2240	653.0222 Junction Boxes 18x12x6-Inch	10.000 EACH	.	.	.	.
2250	653.0905 Removing Pull Boxes	7.000 EACH	.	.	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150811001PROJECT(S):
1003-10-72FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2370	655.0615 Electrical Wire Lighting 10 AWG	4,286.000 LF	.	.	.	.
2380	655.0620 Electrical Wire Lighting 8 AWG	37,096.000 LF	.	.	.	.
2390	655.0625 Electrical Wire Lighting 6 AWG	3,054.000 LF	.	.	.	.
2400	655.0700 Loop Detector Lead In Cable	8,684.000 LF	.	.	.	.
2410	655.0800 Loop Detector Wire	11,218.000 LF	.	.	.	.
2420	656.0200 Electrical Service Meter Breaker Pedestal (location) 003. Station 286+14 AW	LUMP	LUMP	.	.	.
2430	656.0500 Electrical Service Breaker Disconnect Box (location) 001. ITS	LUMP	LUMP	.	.	.
2440	657.0100 Pedestal Bases	13.000 EACH	.	.	.	.
2450	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	37.000 EACH	.	.	.	.
2460	657.0310 Poles Type 3	7.000 EACH	.	.	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150811001PROJECT(S):
1003-10-72FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2780	672.0250 Base Camera Pole 50-FT	1.000 EACH	.		.	
2790	673.0105 Communication Vault Type 1	1.000 EACH	.		.	
2800	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	.		.	
2810	674.0200 Cable Microwave Detector	11,334.000 LF	.		.	
2820	674.0300 Remove Cable	2,163.000 LF	.		.	
2830	675.0300 Install Mounted Controller Microwave Detector Assembly	6.000 EACH	.		.	
2840	675.0400.S Install Ethernet Switch	4.000 EACH	.		.	
2850	677.0100 Install Camera Pole	1.000 EACH	.		.	
2860	677.0200 Install Camera Assembly	1.000 EACH	.		.	
2870	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	.		.	
2880	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	1,883.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150811001PROJECT(S):
1003-10-72FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2990	SPV.0060 Special 002. CPM Progress Schedule Updates and Accepted Revisions	14.000 EACH	.		.	
3000	SPV.0060 Special 003. Lighting and Ramp Gate Control Cabinet 120/240 30-Inch	1.000 EACH	.		.	
3010	SPV.0060 Special 004. Temporary Inlet Casting	1.000 EACH	.		.	
3020	SPV.0060 Special 005. Weir Wall	4.000 EACH	.		.	
3030	SPV.0060 Special 006. Traffic Control Barricades Type III With Sign, Permanent	10.000 EACH	.		.	
3040	SPV.0060 Special 501. Remove ITS Field Cabinet	1.000 EACH	.		.	
3050	SPV.0060 Special 502. Remove Electrical Service Breaker Disconnect Box	1.000 EACH	.		.	
3060	SPV.0060 Special 503. Remove Electrical Service Meter Breaker Pedestal	2.000 EACH	.		.	
3070	SPV.0060 Special 504. Remove and Salvage ITS Equipment	1.000 EACH	.		.	
3080	SPV.0060 Special 505. Remove Type 5 Pole	1.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150811001

PROJECT(S):
1003-10-72

FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
3190	SPV.0105 Special 001. Survey Project 1003-10-72	LUMP	LUMP			.
3200	SPV.0105 Special 002. Concrete Pavement Joint Layout	LUMP	LUMP			.
3210	SPV.0180 Special 001. Removing Concrete Median B-53-144	550.000 SY		.		.
3230	652.0700.S Install Conduit into Existing Item	1.000 EACH		.		.
3240	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. ITS	LUMP	LUMP			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.