McHenry County
Division of Transportation

Joseph R. Korpalski, Jr., P.E.
Director of Transportation/County Engineer

ADDENDUM #01

McHenry County Division of Transportation

Section 21-00527-00-RS

The following information shall be incorporated within the bid packet for McHenry County DOT **Section # 21-00527-00-RS:**

The current BLR 12200a forms in the above referenced section number proposal shall be replaced with the updated attached BLR 12200a forms.

The attached Special Provision pages, 5 thru 24, shall replace the existing corresponding pages currently in the above Section # Proposal.

The attached Typical Sections shall replace the existing Typical Sections in the above Section # Proposal.

The attached Summary of Quantities pages shall replace the existing Summary of Quantities pages in the above Section # Proposal.

The attached Pedestrian Push Button Relocation pages shall be inserted into and be part of the above Section # Proposal.

The attached Flasher Relocation page shall be inserted into and be part of the above Section # Proposal.

Upon receipt of this Addendum, execute and return a signed copy by fax to the McHenry County Division of Transportation at (815) 334-4989. **Bids will not be accepted from Contractors who have not incorporated the above information into the bid packet and executed and returned the Addendum.**

Date: _____

Contractor: _____

Signed : _____

16111 Nelson Road • Woodstock • IL • 60098
Phone (815) 334-4960 • Fax (815) 334-4989

ADDENDUM # 01

SCHEDULE OF PRICES

BLR 12200a

RETURN WITH BID

Illinois Department of Transportation

SCHEDULE OF PRICES

A bid will be declared unacceptable if neither a unit price nor total price is shown.

ADDENDUM # 01
Base Bid, Locations "A"& "B"

County McHenry
Local Public Agency
Section 21-00527-00-RS
Route Various Roads

Schedule for Multiple Bids

Combination Letter	Sections Included in Combinations	Total

Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
1	BITUMINOUS MATERIALS (TACK COAT)	POUND	260,969.0		
2	AGGREGATE FOR TACK COAT	TON	259.0		
3	LEVELING BINDER (HAND METHOD), N50	TON	1,100.0		
4	LEVELING BINDER (MACHINE METHOD), N50	TON	7,500.0		
5	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	22,325.0		
7	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D, N70 1.5"	TON	14,481.0		
8	CLASS D PATCHES, TYPE IV, 6 INCH	SQ YD	2,000.0		
9	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0		
11	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	29,000.0		
13	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD	161,900.0		
14	CONSTRUCTING TEST STRIP	EACH	2.0		
15	SHORT TERM PAVEMENT MARKING (SPECIAL)	FOOT	237,498.0		
16	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	388.0		
17	RECESSED REFLECTIVE PAVMENT MARKER	EACH	777.0		
18	GROOVED THERMOPLASTIC PAVT MARK - L&S	SQ FT	1,112.8		
19	GROOVED THERMOPLASTIC PAVT MARK - LINE 4"	FOOT	140,003.0		
20	GROOVED THERMOPLASTIC PAVT MARK - LINE 6"	FOOT	4,157.0		
21	GROOVED THERMOPLASTIC PAVT MARK - LINE 8"	FOOT	100.0		
22	GROOVED THERMOPLASTIC PAVT MARK - LINE 12"	FOOT	1,725.0		
23	GROOVED THERMOPLASTIC PAVT MARK - LINE 24"	FOOT	172.0		
24	RECLAMITE EMUL MALTENE-BASED REJUVENATING	SQ YD	172,393.0		
25	HOT-MIX ASPHALT SURFACE REMOVAL, ADJUST SP 1/2"	SQ YD	2,000.0		
26	AGGREGATE SHOULDERS, TYPE B	TON	1,541.0		
27	EARTH EXCAVATION	CU YD	45.0		
29	EXCAVATING AND GRADING EXISTING SHOULDER-2'	UNIT	46.0		
31	EXCAVATING AND GRADING EXISTING SHOULDERS-4'	UNIT	47.0		
33	EXCAVATING AND GRADING EXISTING SHOULDER-6'	UNIT	120.0		
34	EXCAVATING AND GRADING EXISTING SHOULDER-8'	UNIT	2.0		
35	EXCAVATING AND GRADING EXISTING SHOULDER-10'	UNIT	2.0		
36	HMA SHOULDERS, 6 INCH - 2 FEET WIDE	TON	365.0		
38	HMA SHOULDERS, 6 INCH - 4 FEET WIDE	TON	710.0		
40	HMA SHOULDERS, 6 INCH - 6 FEET WIDE	TON	2,760.0		

RETURN WITH BID

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
41	HMA SHOULDERS, 6 INCH - 8 FEET WIDE	TON	61.0		
42	HMA SHOULDERS, 6 INCH - 10 FEET WIDE	TON	85.0		
43	ADA RAMP REMOVAL & REPLACEMENT	DOL	1.0		
44	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH	2.0		
45	STORM SEWER INSTALLATION 15"	FOOT	50.0		
46	HOT-MIX ASPHALT REMOVAL (SPECIAL)	SQ YD	250.0		
47	SEEDING, CLASS 2	ACRE	8.9		
48	NITROGEN FERTILIZER NUTRIENT	POUND	525.0		
49	PHOSPHORUS FERTILIZER NUTRIENT	POUND	525.0		
50	POTASSIUM FERTILIZER NUTRIENT	POUND	525.0		
51	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	45,093.0		
52	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	45,093.0		
53	COMBINATION CURB AND GUTTER REMOVAL	FOOT	260.0		
54	B6.12 CONCRETE CURB & GUTTER	FOOT	625.0		
55	CONCRETE CURB - DEPRESSED	FOOT	40.0		
56	PEDESTRIAN PUSH BUTTON RELOCATION	L SUM	1.0		
57	STONE RIPRAP, CLASS A3	SQ YD	135.0		
58	FILTER FABRIC	SQ YD	135.0		
59	REMOVAL & RE-ERECT STEEL BEAM GUARDRAIL	FOOT	180.0		
60	REMOVE & RE-ERECT TRAFFIC BARRIER TERMINALS - TYPE 1	EACH	2.0		
61	SOIL DISPOSAL ANALYSIS	EACH	4.0		
62	REGULATED SUBSTANCE FINAL CONSTRUCTION REPORT	L SUM	0.7		
63	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	0.7		
64	ON SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	2.0		
65	FLASHER RELOCATION	L SUM	1.0		

RETURN WITH BID

Illinois Department of Transportation

SCHEDULE OF PRICES

A bid will be declared unacceptable if neither a unit price nor total price is shown.

ADDENDUM # 01
Alternate Bid, Location "C"

County McHenry
Local Public Agency
Section 21-00527-00-RS
Route Various Roads

Schedule for Multiple Bids

Combination Letter	Sections Included in Combinations	Total

Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
1	BITUMINOUS MATERIALS (TACK COAT)	POUND	83,395.0		
2	AGGREGATE FOR TACK COAT	TON	99.0		
3	LEVELING BINDER (HAND METHOD), N50	TON	100.0		
4	LEVELING BINDER (MACHINE METHOD), N50	TON	2,600.0		
6	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D N70 - 2"	TON	7,404.0		
8	CLASS D PATCHES, TYPE IV, 6 INCH	SQ YD	250.0		
10	TRAFFIC CONTROL AND PROTECTION, (SPECIAL) - ALT BID	L SUM	1.0		
11	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	34,000.0		
12	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	51,000.0		
14	CONSTRUCTING TEST STRIP	EACH	1.0		
15	SHORT TERM PAVEMENT MARKING (SPECIAL)	FOOT	24,655.0		
17	RECESSED REFLECTIVE PAVMENT MARKER	EACH	105.0		
19	GROOVED THERMOPLASTIC PAVT MARK - LINE 4"	FOOT	51,280.0		
24	RECLAMITE EMUL MALTENE-BASED REJUVENATING	SQ YD	66,108.0		
25	HOT-MIX ASPHALT SURFACE REMOVAL, ADJUST SP 1/2"	SQ YD	1,000.0		
28	CONTROLLED LOW STRENGTH MATERIAL	CU YD	50.0		
30	EXCAVATING AND GRADING EXISTING SHOULDER-3'	UNIT	137.0		
32	EXCAVATING AND GRADING EXISTING SHOULDERS-5'	UNIT	190.0		
37	HMA SHOULDERS, 6 INCH - 3 FEET WIDE	TON	1,600.0		
39	HMA SHOULDERS, 6 INCH - 5 FEET WIDE	TON	3,700.0		
47	SEEDING, CLASS 2	ACRE	4.6		
48	NITROGEN FERTILIZER NUTRIENT	POUND	300.0		
49	PHOSPHORUS FERTILIZER NUTRIENT	POUND	300.0		
50	POTASSIUM FERTILIZER NUTRIENT	POUND	300.0		
51	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	22,600.0		

RETURN WITH BID

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
52	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	22,600.0		
61	SOIL DISPOSAL ANALYSIS	EACH	2.0		
62	REGULATED SUBSTANCE FINAL CONSTRUCTION REPORT	L SUM	0.3		
63	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	0.3		
64	ON SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	1.0		

ADDENDUM # 01

SPECIAL PROVISIONS

PAGES 5 thru 24

For projects that shall exceed four (4) days duration, all signs except those referring to daily lane closures shall be post-mounted in accordance with Highway Standard 701901.

The Contractor shall insure that all traffic control devices installed by the contractor are in place and operational every day, including Sundays, holidays and under all weather conditions.

Placement and maintenance of all traffic control devices shall be in accordance with the applicable Highway Standards and as directed by the Engineer. The Engineer shall be the sole judge as the acceptability of placement and maintenance of all traffic control devices. The contractor shall provide all materials, labor, equipment and traffic control necessary to complete the work. All work shall be paid for under the Pay Item – **TRAFFIC CONTROL & PROTECTION**.

ADA RAMP REMOVAL & REPLACEMENT

This work shall be performed at fifteen (15) ramp locations along Ackman Road. This includes five (5) ramps at Westport Ridge, eight (8) at Golf Course Road and two (2) at Manchester Drive. The work shall entail removal of the existing ADA ramps and sidewalks, layout of proposed and installation of new ADA ramps and sidewalks. Other work included in the costs associated with this pay item shall be the efforts needed to hire a consultant and design the ADA ramps and associated work including structure adjustments and all other related work for the installation of the ADA ramps. MCDOT shall provide ADA design guidance to the Consultant for design purposes, once the design is completed, it shall be reviewed internally by MCDOT staff for concurrence and acceptance of the design prior to construction of the proposed ADA ramp locations. All locations will be verified in the field for compliance at the end of the project with a representative from the contractor and MCDOT and any part not meeting ADA requirements may require adjustments, removals and reinstallations of certain sidewalk sections or ramps shall be at the contractor's expense. The locations for this work are on the maps located in the Standards section of this contract.

Basis of Payment: Payment for ADA upgrades and other facilities shall be according to Article 109.04.b in the Standard Specifications for Road and Bridge Construction, at a dollar amount price for **ADA RAMP REMOVAL & REPLACEMENT**, which price shall include the design, layout, all materials, labor, equipment and traffic control necessary to complete the work.

PEDESTRIAN PUSH BUTTON RELOCATION

The pedestrian signals will be installed at the ADA locations on Ackman Road at Golf Course Road at all eight (8) ADA locations as well as two (2) ADA locations at Ackman Road at Westport Ridge. Locations will be laid out by the MCDOT Traffic Manager. All work associated with the installation of the pedestrian signals will be included in the cost of this item.

Basis of Payment: Payment for Pedestrian Push Button Relocation and other facilities shall be paid for at a lump sum for **PEDESTRIAN PUSH BUTTON RELOCATION**, which price shall include the design, layout, all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: Payment for Flasher Relocation and other facilities shall be paid for at a lump sum costs for **FLASHER RELOCATION**, which price shall include the design, layout, all materials, labor, equipment and traffic control necessary to complete the work.

CONCRETE CURB REMOVAL & INSTALLATION

Concrete Curb shall be removed and installed during the installation of the ADA ramps at the fifteen (15) locations listed above as well as the removal of acceleration lanes on the northwest and southeast ends of the intersection on Ackman road at Westport Ridge. This work shall entail the installation of B6.12 Combination Curb & Gutter and Depressed Curb and removal of existing curb. The Contractor shall be responsible for disposal of all waste materials related to this work.

Basis of Payment: Payment for Installation of Concrete Curb & Gutter Shall be according to Section 606 & 1020 of the Standard Specifications for Road and Bridge Construction, at a unit price per foot for **B6.12 CONCRETE CURB & GUTTER**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: Payment for Installation of Depressed Gutter Installation shall be according to Section 606 and 1020 of the Standard Specifications for Road and Bridge Construction, at a unit price per foot for **DEPRESSED GUTTER**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: Payment for Concrete Curb Removal shall be according to Section 440 in the Standard Specifications for Road and Bridge Construction, at a unit price per foot for **CONCRETE CURB & GUTTER REMOVAL**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

CONCRETE STORM CATCH BASIN & STORM INLET & STORM SEWER PIPE

Installation of the Storm Catch basin & Storm Inlet & Pipe shall be at the intersection of Ackman and Golf Course roads. The installation shall be in the Southwest and Southeast corners of the intersection. The two catch basins shall be 48 inch diameter and 6 feet deep with curb inlets to match B6.12 curb. The sewer pipe shall be only PVC or RCCP pipe and 15 inch diameter. The catch basin in the SE corner shall connect to an existing storm sewer manhole, a connection point shall be established in the existing storm manhole and that cost included with the storm sewer pipe installation. The catch basin in the SW corner of the intersection shall discharge into an existing ditch line.

Basis of Payment: Payment for installation of the Storm Catch Basin shall be according to Section 602 in the Standard Specifications for Road and Bridge Construction, at a unit price per each for **CB TYPE A, 4' DIA, TYPE 11 FR&GR**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: Payment for installation of the storm sewer pipe shall be according to Section 542 in the Standard Specifications for Road and Bridge Construction, at a unit price per foot for **STORM SEWER INSTALLATION-15"**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

HMA REMOVAL

HMA removal shall be performed at the intersection of Ackman Road and Westport Ridge after the installation of the concrete curb. The Contractor shall be responsible for the disposal of all waste material related to this work.

Basis of Payment: Payment for HMA Removal shall be according to Section 440 in the Standard Specifications for Road and Bridge Construction, at a unit price per square yard for **HMA REMOVAL**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

EXCAVATING & GRADING EXISTING SHOULDERS

This work consists of the installation of 2 ft., 3 ft., 4 ft., 5 ft, 6 ft., and 10 ft. HMA shoulders and one 10ft. right turn lane at various locations. This work will be located at Base Bid Locations A on Ackman Road & Alternate Bid Location C on Vermont Road. The widening of these roads are shown on the location maps later in these Special Provisions. All of the shoulder excavation work shall be performed after the milling work is complete and to a depth 6" below the milled asphalt surface. HMA Binder Course, IL 19.0, N50 material shall be placed in two lifts with the final lift matching the existing surface of the milled pavement. The work shall be done in accordance with Article 202 of the Standard Specifications of Road and Bridge Construction. The work shall be measured in accordance with Article 202.07 (b) of the Standard Specifications. The Engineer shall lay out the areas on the two roads where this work is to be done.

The following work shall be incidental to and included in the unit costs of the above work:

Access to all driveways within the work zone shall be maintained during this work.
There are a total of 38 mailboxes on Vermont Road 10 on Ackman road that have to be moved, repositioned and re-installed to original location during this work.

After the paved shoulders are in place, soils and seeding shall be placed to match the existing conditions of the ditch line. This work shall be in accordance with Section 211, 250 and 251 of the Standard Specifications.

Basis of Payment: This work shall be paid for at the contract unit price per unit, for **EXCAVATING & GRADING EXISTING SHOULDERS 2', 3', 4' & 6'**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per square yard, for **RIP RAP CA-3**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per square yard, for **FILTER FABRIC**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

LANDSCAPING

Landscaping shall be performed instead of aggregate shoulders on parts of Ackman road and all of Vermont road where Excavating & Grading Existing Shoulders occurs, areas around the ADA Ramp upgrades and the elimination of the acceleration lanes at Ackman Road and Westport Ridge on the northwest and southeast sections of that intersection. All shoulders on Kishwaukee Valley shall be landscaped also. Areas to be landscaped on Ackman shall be laid out by the Engineer. This work shall be in accordance with Section 211, 250 and 251 of the Standard Specifications.

Basis of Payment: This work shall be paid for at the contract unit price per square yard, for **HEAVY DUTY EROSION CONTROL BLANKET**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per square yard, for **TOP SOIL FURNISH AND PLACE**, of the thickness specified, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per acre, for **SEEDING** of the class specified, and at the contract unit prices per pound for **NITROGEN FERTILIZER NUTRIENT, PHOSPHORUS FERTILIZER NUTRIENT and POTASSIUM FERTILIZER NUTRIENT**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

EARTH EXCAVATION

This work shall be on Vermont Road between Collins and Secor Roads and shall be completed after the HMA Milling work is complete. One lane shall always be open to traffic during this work. This work shall consist of excavating to the top of the culvert and establishing several holes in the crown of the CMP cross culvert, then fill the void in the culvert with controlled low-strength material. The culvert is a 60" round CMP, that is approximately 44 feet in length. The controlled low-strength material shall fill culvert and all voids up to the holes to the milled surface of the road. The Engineer shall mark the area over the culvert to be excavated. It is the

Contractors responsibility to dispose of all of the HMA and granular excavated material. MCDOT maintenance staff shall install the end plugs on each side of the culvert before the contractor begins the above work.

Basis of Payment: This work shall be paid for at the contract unit price per Cubic Yard and according to Article 202.03 in the Standard Specifications for Road and Bridge Construction for **EARTH EXCAVATION**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per cubic yard for **CONTROLLED LOW-STRENGTH MATERIAL**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

GUARDRAIL INSTALLATION

This work will take place on Ackman road between Redtail Drive and Swanson Road. **All guardrail shall be replaced and upgraded to the most current guardrail standards** and the existing guardrail can be disposed of. All steel posts and end sections shall be mounted into the new HMA shoulder. Traffic Barrier Terminal Type 1, Special (Tangent) shall be used when re-erected. The Standard for the re-erection of the Guardrail Terminal & Guardrail shall be 630301-09 sheet 1.

RIPRAP and FILTER FABRIC shall be placed on the slope adjacent the newly placed HMA Shoulder before the Guardrail installation.

Basis of Payment: This work shall be paid for at the contract unit price per foot and according to Section 630 in the Standard Specifications for Road and Bridge Construction for **REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per each and according to Section 633 in the Standard Specifications for Road and Bridge Construction for **REMOVE and RE-ERECT TRAFFIC BARRIER TERMINALS – TYPE 1**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per Square Yard for **STONE RIP-RAP CLASS A3**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per Square Yard for **FILTER FABRIC**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

SPECIAL PROVISIONS
MCHENRY COUNTY
Section 21-00527-00-RS

HMA SURFACE REMOVAL (SPECIAL)

This work consists of removal of the existing bituminous pavement to a nominal thickness of ±3.75" at Locations A & B and ± 2.00" at Alternate Location C. Specific milling areas are identified in other parts of these special provisions. The work shall be accomplished in accordance with the applicable portions of Section 440 of the Standard Specifications. The machine used for this work shall be a milling machine meeting the requirements of Article 440.02 of the Standard Specifications. The materials resulting from the operation shall become the property of the Contractor. The Contractor shall recycle the milled material. The McHenry County Division of Transportation and/or McHenry County Township Road Districts shall be provided with the opportunity to provide three trucks to haul recycled asphalt to the McHenry County Division of Transportation or Township Road District garages during Hot-Mix Asphalt Surface Removal (Special) operations.

Prior to Hot-Mix Asphalt Surface Removal (Special), appropriate signage must be installed in accordance with the requirements of Section 700 of the *Standard Specifications.* Upon completion of the Hot-Mix Asphalt Surface Removal (Special) operations, "Road Construction Ahead" and "Bump" signs must remain in place on each side of the road at both **upstream and downstream** ends and any **side roads** entering the area being removed until all construction on the project has been completed, **there will be no substitution for the installation of these signs**. Bump signs can be removed after the paving operations have been completed however, Road Construction Ahead signs must remain in place until all construction has been completed. Road Construction Ahead signs shall be accompanied by signage in accordance with Section 701 of the *Standard Specification* during construction operations.

At job limits or where the milled portions of pavement meet existing pavement not being resurfaced, the Contractor shall create a straight, perpendicular joint to facilitate and enhance paving operations. This part of the work will be considered incidental and not measured for payment. The contractor shall provide and maintain temporary bituminous ramps across the entire cut at both **upstream and downstream** ends of the area removed. Temporary bituminous ramps shall be installed across the entire length of all side roads and driveways entering onto the area being milled if there is a 1 (one) inch difference in height between the milled surface and the existing road or driveway. Contractor shall have sufficient bituminous materials meeting the approval of the Engineer at the worksite to construct the ramps before beginning pavement surface removal. Surface removal shall be in accordance with Section 440. Cold-milled bituminous tailings shall **not** be acceptable for temporary ramps. The temporary ramps shall be constructed immediately upon completion of the removal operation. Ramps shall have a minimum taper rate of 1:40 (V:H) and shall extend the entire width of the roadway or driveway. This work shall be included as part of the unit price for HMA Surface Removal (Special) pay item and not a separate pay item. Longitudinal joints created between milled and un-milled sections of the roadway shall not be left overnight. The entire width of the pavement section shall be milled prior to the end of each day.

SPECIAL PROVISIONS
MCHENRY COUNTY
Section 21-00527-00-RS

In accordance with Article 105.03 of the Standard Specifications, the contractor shall be assessed a monetary deduction in the amount of either $1000 per calendar day or 0.05% of the awarded contract value, whichever is greater, as a Traffic Control Deficiency, for each calendar day per each location at which the temporary bituminous ramps have not been installed.

Not more than seven (7) calendar days will be allowed between the time the Contractor finishes each days' pavement removal and the time an HMA pavement lift is placed.

In accordance with Article 105.03 of the Standard Specifications, if the Contractor does not place the proposed first pavement lift within the seven calendar day period after the removal of the existing pavement the contractor shall be assessed a monetary deduction in the amount of either $1000 per calendar day or 0.05% of the awarded contract value, whichever is greater, as a Traffic Control Deficiency for each calendar day per each location in excess of the seven day period.

For the Proposal/Contract the average roadway width was obtained by taking ten measurements over the entire length of the proposed work. The total roadway width shall be removed. Final square yard quantities will be based on measurements taken every one hundred feet for the total length of each road being milled.

Total Square Yards identified in the Estimate of Quantities Sheet includes all side roads entering onto the County road being milled.

The following work shall be included and paid for under the unit price for HMA Surface Removal (Special):

- Mailbox turnouts shall be milled to a dimension conforming to existing conditions.

- Driveway and Field Entrances shall be milled to a three (3) foot length or whatever dimension is necessary to create and maintain a satisfactory riding condition. These guidelines are variable only with approval of the Engineer and shall be finalized after the mainline HMA surface removal has been completed.

The following work shall be incidental to the HMA milling work being performed and included in the unit price for HMA Surface Removal (Special):

- Installation of temporary ramps at the end of milling day.

- Removal of the temporary ramps and the saw cutting of the HMA and the application of the tack coat onto the existing surface after the HMA ramps have been removed.

Basis of Payment: This work will be paid for at the contract unit price per square yard, measured in place and computed, for **HMA SURFACE REMOVAL (Special) – 2.0" or 3.75"**

of the thickness specified, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

HMA SURFACE REMOVAL ADJUSTMENT (SPECIAL) - 1/2"

When milling the existing road to the specified depth reveals substantial scabbing left from previous HMA paving lifts the Contractor shall mill an additional one half (1/2") inch off of the exposed surface to remove the scabbing. This work shall be undertaken at the direction of the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per square yard, measured in place and computed, for **HMA SURFACE REMOVAL ADJUSTMENT (SPECIAL) – 1/2"** which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

PAVEMENT PATCHING - 6"

Pavement Patching shall be done in accordance with Section 442 of the Standard Specifications. The pavement patching required in this contract is to a depth of six (6") inches after the milling is complete.

Basis of Payment: This work shall be paid for at the contract unit price per square yard for **CLASS D PATCH, TYPE IV, 6"**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

BITUMINOUS MATERIALS (TACK COAT)

This work shall be performed in accordance with the applicable parts of Section 406 of the Standard Specifications and included Special Provisions. The method of measurement shall be by the pound of residual asphalt applied and in accordance with the applicable parts of Article 406.14. Materials shall be selected, prepared and applied in accordance with the Hot-Mix Asphalt – Tack Coat (BDE) included in these specifications, with the approval of the Engineer. Signage shall be in accordance with Section 701. **During the application of the Tack Coat, Flaggers shall be used to direct traffic off of the tacked areas until at such time the Tack Coat does not track onto vehicles. Tack coat will be applied at a rate of 0.05 pounds per square foot on milled surfaces and a rate of 0.025 between binder and surface lifts as a fog coat.**

STATIONING SHALL BE PROVIDED BY THE CONTRACTOR FOR EACH TACK COAT LOAD THAT IS DISTRIBUTED.

Basis of Payment: This work will be paid for at the contract unit price per pound of residual asphalt applied for **BITUMINOUS MATERIALS (TACK COAT)**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

SPECIAL PROVISIONS
MCHENRY COUNTY
Section 21-00527-00-RS

HMA BLEEDING OR FLUSHING

The Contractor shall address in the HMA QC Addendum the steps that shall be taken to avoid this issue during construction. If bleeding/flushing occurs in any HMA course, regardless of the cause, the areas of bleeding/flushing larger than one square foot within a five-foot length of pavement shall result in a deduction of 2 tons from that HMA pay item. If bleeding/flushing occurs in any HMA course, regardless of the cause, the areas of bleeding/flushing larger than ten square feet within a ten-foot length of pavement shall result in the entire area affected to be removed and replaced for the full width of the driving lane (including paved shoulder where applicable) with the same HMA course mixture at the entire expense of the Contractor.

If and when flushing occurs as stated above it shall be the responsibility of the Contractor to identify and stop the cause of the flushing immediately at the HMA Plant. The following guidelines shall be followed in the field when flushing occurs:

1. When flushing is identified behind the paver from a single truck the Contractor Foreman and QC field technician shall notify the QC Manager and the Plant of the flushing to resolve the issue. The above stated remedies shall be followed for any flushing issues.
2. When flushing is identified behind the paver of a second truck all paving operations shall stop and all HMA that is on the road shall return to the plant for disposal by the contractor. The above stated remedies shall be followed for any flushing issues.

3. Paving operations shall only start back up again when the QC Manager and the QA Manager are in agreement that the flushing issue has been resolved.

SAFETY EDGE (SPECIAL)

"The device which forms the safety edge shall be mounted on the paver screed against the end gate....", which shall be changed to state, "The device which forms the safety edge shall be mounted inside the screed against the end plate....". All other safety edge devices shall be considered unacceptable. Providing the Safety Edge shall be at no cost and incidental to the Paving operations.

NOTCHED WEDGE LONGITUDINAL JOINT

Description: This work shall consist of constructing a notched wedge longitudinal joint between successive passes of hot-mix asphalt (HMA) binder course that is placed in two and one quarter (2.25") inch or greater lifts on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1-1/4 inch vertical notch at the centerline or lane line, a 9 to 12 inch uniform taper extending into the open lane, and a second 1 to 1-1/4 inch vertical notch. (see Figure 1)

Figure 1

Equipment: Equipment shall meet the following requirements:

a) Strike off Device: The strike off device shall produce the notches and wedge of the joint and shall be adjustable. The device shall be attached to the paver and shall not restrict operation of the main screed.
b) Wedge Roller: The wedge roller shall have a minimum diameter of 12 inches, a minimum weight of 50lb/in. of width, and a width equal to the wedge. The roller shall be attached to the paver.

CONSTRUCTION REQUIREMENTS

Joint Construction: The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by a joint roller or joint compactor.

c)

Compaction: Initial compaction of the wedge shall be as close to final density as possible. Final density requirements of the entire mat, including the wedge, shall remain unchanged.

Tack Coat: Immediately prior to placing the adjacent lift of binder, the bituminous material specified for the mainline prime coat shall be applied to the entire face of the notched wedge longitudinal joint. The material shall be applied uniformly and at a rate that will provide a residual asphalt on the prepared surface as approved by the Engineer.

Method of Measurement: The notched wedge longitudinal joint will not be measured for payment.

The tack coat will be measured for payment according to Article 406.13 of the Standard Specification.

SHORT TERM PAVEMENT MARKINGS (SPECIAL)

Short Term pavement markings shall be placed at the end of every day after the following operations:

Milled Surface
Application of Bituminous Materials (Tack Coat)
HMA Two Inch Surface Course

and

Milled Surface
Application of Bituminous Materials (Tack Coat)
HMA Binder Course
Application of Bituminous Materials (Tack Coat)
HMA Surface Course

Short Term pavement markings shall be placed in sets of two. Each pavement marker shall be four inches wide, four feet long and placed every forty (40) feet. Short term pavement markings shall be placed 1.5 feet from the center line of the road. Short term pavement markings shall conform to the requirements of Section 1095 of the Standard Specifications. When the Contractor installs the short term pavement markings and the markings interfere with the installation of the permanent pavement markings on the Bituminous Surface course the Contractor shall remove the short term pavement markings before the installation of the permanent pavement markings. Short term pavement markings shall be removed within five (5) working days of notification by the County that permanent markings are scheduled to be placed. If the Contractor does not remove the short term pavement markings before the permanent pavement markings are installed, the Contractor shall be responsible for removing the short term pavement markings and installing permanent pavement markings. The voids shall be filled with the same permanent pavement marking material when the Short Term pavement markers are removed. Removal of Short Term pavement markings shall be incidental to the pay item Short Term Pavement Marking (Special).

Basis of Payment: This work shall be paid for at the contract unit price per foot for **SHORT TERM PAVEMENT MARKING (SPECIAL),** which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

AGGREGATE SHOULDERS, TYPE B (SPECIAL)

Quantity estimates are shown on the Estimate of Quantities schedule located elsewhere in this proposal. Aggregate Shoulders, Type B (Special) will be measured in place and the area computed in square yards. The width for placement and measurement shall be as shown in the Estimate of Quantities. No payment will be made for aggregate outside the plan width shown on the Estimate of Quantities. Aggregate shoulder depths will be variable to meet existing conditions. The Contractor is responsible for determining the existing shoulder condition to determine needed quantities for the project. Shoulders shall be placed in such a manner as to not exceed 9.0% slope.

All coarse aggregate shoulder material shall be 100% crushed stone or crushed gravel or concrete material meeting the IDOT specifications for CA-6. No Reclaimed Asphalt Pavement (RAP) shall be used for shoulder material on County Highways even if the RAP material meets the required CA-6 gradation requirements.

Final payment for Aggregate Shoulders, Type B (Special) will be based upon the above stated widths unless otherwise directed by the Engineer in the field.

Basis of Payment: This work will be paid for at the contract unit price per ton for **AGGREGATE SHOULDERS, TYPE B (SPECIAL)** which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

RECESSED REFLECTIVE PAVEMENT MARKERS

This work consists of furnishing and installing snowplow resistant recessed reflective pavement markers, at locations where markers were previously removed prior to resurfacing operations. Placement operations must be coordinated to prevent a conflict with pavement striping work.

Basis of Payment: Removal of existing raised reflective pavement markers shall be paid for at the contract unit price per each for **RAISED REFLECTIVE MARKER REMOVAL**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

Basis of Payment: This work shall be paid for at the contract unit price per each for **RECESSED REFLECTIVE PAVEMENT MARKER**, which price shall include all materials, labor, equipment and traffic control necessary to complete the work in accordance with the standard drawings included in the contract and the applicable parts of Article 781 of the Standard Specifications.

PAVING OPERATIONS

The Contractor shall, at all times, provide at least a five (5) man crew for all paving operations. The five man crew will consist of a dump man, paver operator, two back screed operators and at least one lute man. The Contractor shall, when needed, lute the center seam between the two new layers of bituminous mix.

RECLAMITE EMUSIFIED MALTENE-BASED REJUVENATOR

General Scope: This work shall consist of furnishing all labor, material, traffic control and equipment necessary to perform all operations for the application of Reclamite Emulsified Maltene-Based Asphalt Rejuvenating Agent to bituminous asphaltic concrete surface courses. The rejuvenation of surface courses shall be by spray application of a cationic **Maltene-Based Rejuvenating Agent** composed of petroleum oils and resins emulsified with water. The base used for the emulsion shall be naphthenic. All work shall be in accordance with the specifications, any applicable drawings, and subject to the terms and conditions of this contract.

Pre-Construction: The CONTRACTOR shall present samples of materials, laboratory reports, calibration reports, and proof of work experience as required by these specifications to the Resident Engineer at the pre-construction meeting.

Material Specifications: The emulsion will be a naphthenic maltene-based rejuvenating agent composed of four maltene components (listed below) uniformly emulsified with water. Each

bidder must submit with his bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements.

RECLAMITE MALTENE-BASED ASPHALT REJUVENATOR SPECIFICATIONS:

Property	Test Method	Requirements	
Viscosity @ 25°C, SFS	ASTM D244	Min. 15	Max. 40
Residue, w%	D244 (Mod)[3]	60	65
Miscibility Test	D244 (Mod)2	Pass	
Sieve Test, w%	D244(Mod.)1		0.1
Particle Charge Test	D244	Positive	
Tests on Distillation Residue:			
Flash Point, COC, C	D92	196	-
Viscosity@ 60C, C	D2170	100	200
Asphaltenes, %w	D2006-70	-	1.00
Maltene Dist. Ratio (Polar Compounds) + (First Acidaffins) (Saturates) + (Second Acidaffins)	D2006-70	0.3	0.6
Polar Compounds/Saturates Ratio	D2006-70	0.5	
Asphaltenes, w%	D2006-70		1.0
Saturated Hydrocarbons, w%	D2006-70	21	28

1Test procedure identical with ASTM D-244 except that distilled water shall be used in place of two (2) percent sodium oleate solution.

2Test procedure identical with ASTM D-244 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water.

3ASTM D-244 Modified Evaporation Test for percent of residue is made by heating 50 gram sample to 149 C (300 F) until foam ceases, then cool immediately and calculate results.

Material Performance: The rejuvenating agent shall have record of at least two years of satisfactory service as asphalt rejuvenating agent and in-depth sealer. Satisfactory service shall be based on the capability of the material to penetrate, replace lost maltene fractions, and decrease the viscosity and increase the penetration value of the in-place asphalt binder as follows; the viscosity shall be reduced by a minimum of forty-five (45) percent, the penetration value shall be increased by a minimum of twenty-five (25) percent. Testing shall be performed by an

independent testing laboratory on extracted asphalt cement from pavement to a depth of three-eighths inch (3/8"). In addition, the pavement shall be in-depth sealed to prevent the intrusion of air and water.

The bidder must submit with their bid:

1. Asphalt Rejuvenator product name and descriptive literature. Literature shall be descriptive and detailed information and shall show it at least meets the material specifications.

2. A current Material Safety Data Sheet (MSDS) for the material.

3. The manufacturer's certification that the material proposed for use is in compliance with these specification requirements.

4. Previous use documentation and test data conclusively demonstrating that the rejuvenating agent has been used successfully for a period of two years by government agencies such as Cities, Counties, or DOT's.

5. Testing data from a minimum of five projects showing that the asphalt rejuvenating agent has been proven to perform, as heretofore required, through field testing by an independent testing laboratory as to the required change in the asphalt binder viscosity and penetration number.

Product Standards: The product "Reclamite"® produced by Tricor Refining, LLC is the standard for the naphthenic emulsified maltene-based asphalt rejuvenating agent requirements and the prices quoted on the Bid Sheet Base Bid shall be for one of these standards.

Applicator Experience: The asphalt rejuvenating agent shall be applied by an experienced applicator of such material. The bidder shall have a minimum of 5 years' experience in applying the product proposed for use on municipal streets. The Contractor must submit with his bid a list of five (5) projects on which he applied said rejuvenator. He shall indicate the project dates, number of square yards treated in each and the name and phone number of the manager in charge of each project. A project superintendent knowledgeable and experienced in application of the asphalt rejuvenating agent must be present and in control of each day's work. The bidder shall submit at the preconstruction meeting a written experience outline of the project superintendent.

Application Temperature and Weather Limitations: The temperature of the asphalt rejuvenation emulsion, at the time of application shall be as recommended by the manufacturer. The asphalt rejuvenating agent shall be applied only when the existing surface to be treated is thoroughly dry and when there is no likelihood of precipitation forecasted within twenty-four (24) hours of application. The asphalt rejuvenating agent shall not be applied when the ambient temperature is below 45 degrees Fahrenheit or when temperatures are forecasted to fall below 40 degrees Fahrenheit within twenty-four (24) hours of application. It shall be the discretion of the

Resident Engineer to determine when weather conditions are not appropriate for the application to occur. Contractor shall halt the application process when so ordered by the Resident Engineer.

Handling of Asphalt Rejuvenating Agent: Contents in tank cars or storage tanks shall be circulated at least forty-five minutes before withdrawing any material for application. When loading the distributor, the asphalt rejuvenating agent concentrate shall be loaded first and then the required amount of water shall be added. The water shall be added into the distributor with enough force to cause agitation and thorough mixing of the two (2) materials. To prevent foaming, the discharge end of the water hose or pipe shall be kept below the surface of the material in the distributor which shall be used as a spreader. The distributor truck will be cleaned of all of its asphalt materials, and washed out to the extent that no discoloration of the emulsion may be perceptible. Cleanliness of the spreading equipment shall be subject to inspection and the Contractor shall halt the application process when so ordered by the Project Manager.

Application Equipment: The distributor for spreading the emulsion shall be self- propelled, and shall have pneumatic tires. The distributor shall be designed and equipped to distribute the asphalt rejuvenating agent uniformly on variable widths of surface at readily determined and controlled rates from 0.05 to 0.5 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed five (5) percent of the specified rate. Distributor equipment shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank. A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Resident Engineer. The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply ¾ pound to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as to not broadcast sand onto driveways or tree lawns. Any wet sand shall be rejected from the job site. Any equipment which is not maintained in full working order, or is proven inadequate to obtain the results prescribed, shall be repaired or replaced at the direction of the Resident Engineer.

Application of Rejuvenating Agent: The asphalt rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be so applied that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by a hand sprayer application. Application of the asphalt rejuvenating agent shall be on one-half width of the pavement at a time. When the second half of the surface is treated, the nozzle nearest the center of the road shall overlap the previous by at least one-half the width of the nozzle spray. In any event the construction joint of the pavement shall be treated in both passes of the distributor truck. Before spreading, the asphalt rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.05 to 0.10 gallons per square

yard, or as approved by the Resident Engineer following field testing. Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and approval is granted for additional applications by the Resident Engineer. Grades or super elevations of surfaces that may cause excessive runoff in the opinion of the Resident Engineer shall have the required amounts applied in two (2) or more applications as directed. Said treatment shall be uniformly applied by a method acceptable to the Resident Engineer. Care should be taken during all rejuvenator applications to not get excessive material on the curb and gutter. Additional cleaning may be required if this occurs at the contractor's expense. After the rejuvenating emulsion has penetrated, a coating of dry sand shall be applied to the surface in sufficient amount to protect the traveling public as required by the Resident Engineer. The Contractor shall furnish a quality inspection report showing the source and manufacturer of asphalt rejuvenating agent. When directed by the Resident Engineer, the Contractor shall take representative samples of material for testing.

Street Sweeping: The Contractor shall be responsible for sweeping and cleaning of the streets prior to and after treatment. Prior to treatment, the street will be cleaned of all standing water, dirt, leaves, foreign materials, etc. This work shall be accomplished by hand brooming, power blowing or other methods approved by the Resident Engineer. If hand cleaning is not sufficient, then a self-propelled street sweeper shall be used. All sand used during the treatment must be removed no later than forty-eight (48) hours after treatment of the street. This shall be accomplished by a combination of hand and mechanical sweeping. All turnouts, cul-de-sacs, etc. must be cleaned and free of any material that would interfere with the treatment. All debris generated by sweeping shall be picked up and disposed of by the contractor. Street sweeping shall be included in the price bid per square yard for asphalt rejuvenating agent. If after sand is swept and it is determined that a hazardous condition exists on the roadway, the Contractor must apply additional sand and sweep no later than twenty-four (24) hours following reapplication. No additional compensation will be allowed for reapplications and removal of sand.
Traffic Control and Safety: The Contractor shall schedule his operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept closed and free from traffic until penetration has become complete and the area is suitable for traffic. Cure time shall be no longer than 90 minutes. When traffic must be maintained at all times on a particular street, then the Contractor shall apply asphalt rejuvenating agent to one (1) lane at a time. Traffic shall be maintained in the untreated lane until the traffic may be switched to the completed lane. Access to adjacent properties shall be maintained during the application. The Contractor shall be responsible for all traffic control and signing required to permit safe travel. All signing and barricading of the work zone shall comply with MUTCD guidelines and IDOT standards.

The Contractor shall notify the Resident Engineer as to the streets that are to be treated each day. All support vehicles used shall also have flashing beacons that can be seen from all sides of the vehicle, for safety considerations for all work on major arterials. If the Contractor fails to provide the required signing, the Contractor shall stop all operations until safe signing and barricading is achieved.

SPECIAL PROVISIONS
MCHENRY COUNTY
Section 21-00527-00-RS

Basis of Payment: This work shall be paid for by the contract unit price per square yard for **RECLAMITE EMULSIFIED MALTENE-BASED REJUVENATING**, which price shall include all materials, equipment, labor, traffic control and incidentals to complete the work as specified and required.

GROOVED THERMOPLASTIC PAVEMENT MARKINGS

All quantities listed in the Schedule of Prices are estimated quantities. The County reserves the right to add or deduct from the locations and quantities shown on the Schedule of Prices. Final decisions to stripe or not stripe a road shall be made by the Engineer.

CONTOL OF WORK: Control of work shall be in accordance with Section 105 of the Standard Specifications. **The contractor shall provide traffic control during all grooving and striping operations.**

DESCRIPTION: This work shall consist of furnishing, grooving and applying inlaid thermoplastic pavement markings.

MATERIALS: The materials shall be according to Article 780.02 of the "Standard Specifications" and the following:

> Article 1095.01 for Thermoplastic Pavement Markings, paragraph (a) Ingredient Materials, subparagraph (4) Glass Beads, shall be modified by adding the following sentence:
>
> The percentage of Glass Beads, Type A, shall be raised to 45% by decreasing the percentage of filler material specified in subparagraph (3) by 15%.

GENERAL: The Contractor shall supply the Engineer with a copy of the pavement marking material manufacturer's recommendations for constructing a groove.

CONSTRUCTION REQUIREMENTS: The work shall be according to Section 780 of the "Standard Specifications" and the following:

GROOVING FOR THERMOPLASTIC PAVEMENT MARKINGS

All Grooving and Thermoplastic Pavement Striping shall not take place until fourteen (14) days after the Reclamite has been placed. The contractor shall provide traffic control during all grooving and striping operations.

The grooving and cleaning of the grooves and road shall be one continuous operation. Any ground HMA material that remains in the groove or road shall be removed before any striping begins.

Equipment: Plane the grooved lines according to manufacturer's recommendations. The grooving equipment shall be equipped with either a free-floating saw blade cutting head or a free-floating grinder cutting head configuration with diamond or carbide tipped cutters and shall produce an irregular textured surface.

Pavement Grooving Methods: The grooves for recessed pavement markings shall be constructed using the following methods:

(a) Wet Cutting Head Operation. When water is required or used to cool the cutting head, the groove shall be flushed with high pressure water immediately following the cut to avoid build up and hardening of slurry in the groove. The pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.

(b) Dry Cutting Head Operation. When used on HMA pavements, the groove shall be vacuumed or cleaned by blasting with a high-pressure air blower with at least 185 ft3/min air flow and 120 psi air pressure to remove loose aggregate, debris, and dust generated during the cutting operation. When used on PCC pavements, the groove shall be flushed with high pressure water or shot blasted to remove any PCC particles that may have become destabilized during the grooving process. If high pressure water is used, the pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.

PAVEMENT GROOVING: Grooving shall not cause ravels, aggregate fractures, spalling or disturbance of the joints to the underlying surface of the pavement. Grooves shall be cut into the pavement prior to the application of the pavement marking material. Grooves shall be cut such that the width is 1 inch greater than the width of the pavement marking line as specified on the plans. Grooves for letters and symbols shall be cut in a square or rectangular shape so that the entire marking will fit within the limits of the grooved area.

The position of the edge of the grooves shall be a minimum of 2 inches from the edge of all longitudinal joints. The Contractor shall achieve straight alignment with the grooving equipment.

The depth of the groove shall not be less than the manufacturer's recommendations for the pavement marking material specified, but shall be installed to a minimum depth of 120 mils ± 10mils from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The Engineer may periodically check groove depths. The cutting head shall be operated at the appropriate speed in order to prevent undulation of the cutting head and grooving at an inconsistent depth.

At the start of grooving operations, a 50 ft test section shall be installed and depth measurements shall be made at 10 ft intervals within the test section. The individual depth measurements shall be within the allowable ranges according to this Special Provision. If it is determined the test section has not been grooved at the appropriate depth or texture, adjustments shall be made to the cutting head and another 50 ft test section shall be installed and checked. This process shall continue until the test section meets the requirements of this Special Provision.

FINAL CLEANING

New HMA - Use a high-pressure air blower with at least 185 ft3/min air flow and 120 psi air pressure to clean the groove.

THERMOPLASTIC PAVEMENT MARKING APPLICATION

Apply the thermoplastic pavement markings according to Section 780 of the "Standard Specifications" and the following:

The equipment used to apply thermoplastic pavement markings, under this contract, shall be limited to hand-operated equipment only. Truck-mounted equipment shall not be used.

Method of Measurement: Lines will be measured for payment in place in feet. Double yellow lines will be measured as two separate lines.

Words and symbols shall conform to the sizes and dimensions specified in the Illinois Manual on Uniform Traffic Control Devices and IDOT standard 780001. They will be measured based on the total areas indicated in Table 1 of Section 780 of the "Standard Specifications" or as indicated on the plans.

Basis of Payment: This work will be paid for at the contract price per foot of applied **GROOVED THERMOPLASTIC PAVEMENT MARKING – LINE** of the width specified; and/or per square foot for **GROOVED THERMOPLASTIC PAVEMENT MARKING – LETTERS AND SYMBOLS**. The unit price shall include all equipment, materials and labor required to furnish, groove and install the thermoplastic pavement markings.

RUMBLE STRIPS

Shoulder Strips shall be installed according to Section 642 of the Standard Specifications and IDOT Standard 642006, at areas designated by the Engineer. MCDOT shall mark the rumble strip limits at all side streets, driveways and at any other entrance, the Contractor shall provide all other guidance for the proper installation of the Rumble Strips. All shoulder Rumble stripes will be to IDOT guidelines which at this time are 48 feet of rumble strip with a 12 foot space. The Contractor shall provide a machine that can cut a straight line rumble strip one inch outside of the white edge line.

ADDENDUM #01

SPECIAL PROVISIONS
MCHENRY COUNTY
Section 21-00527-00-RS

Basis of Payment: This work will be paid for at the contract unit price bid per foot for **SHOULDER RUMBLE STRIPS – 8"** which price shall include all materials, labor, equipment and traffic control necessary to complete the work.

KEEPING ROADWAYS OPEN TO TRAFFIC

All roads shall remain open to traffic and Flaggers shall be present when work is being performed. The Contractor shall obtain, erect, maintain, and remove all signs, barricades, flaggers, and other traffic control devices as may be necessary for the regulating, warning, or guiding of traffic. Placement and maintenance of traffic control devices shall be as directed by the Engineer in accordance with the applicable parts of Article 107.14 of the Standard Specifications. All traffic control will be considered as incidental to the contract.

GENERAL AREA CLEANUP

The Contractor shall be responsible for disposing of all surplus materials or construction debris related to the job. The Contractor shall also be responsible for any refuse that was discarded by the crews during the paving project.

LIEN WAIVERS

End of contract final waivers from all sub-contractors and material suppliers that perform work or provide materials under this contract must be submitted before final payment shall be made.

ADDENDUM # 01

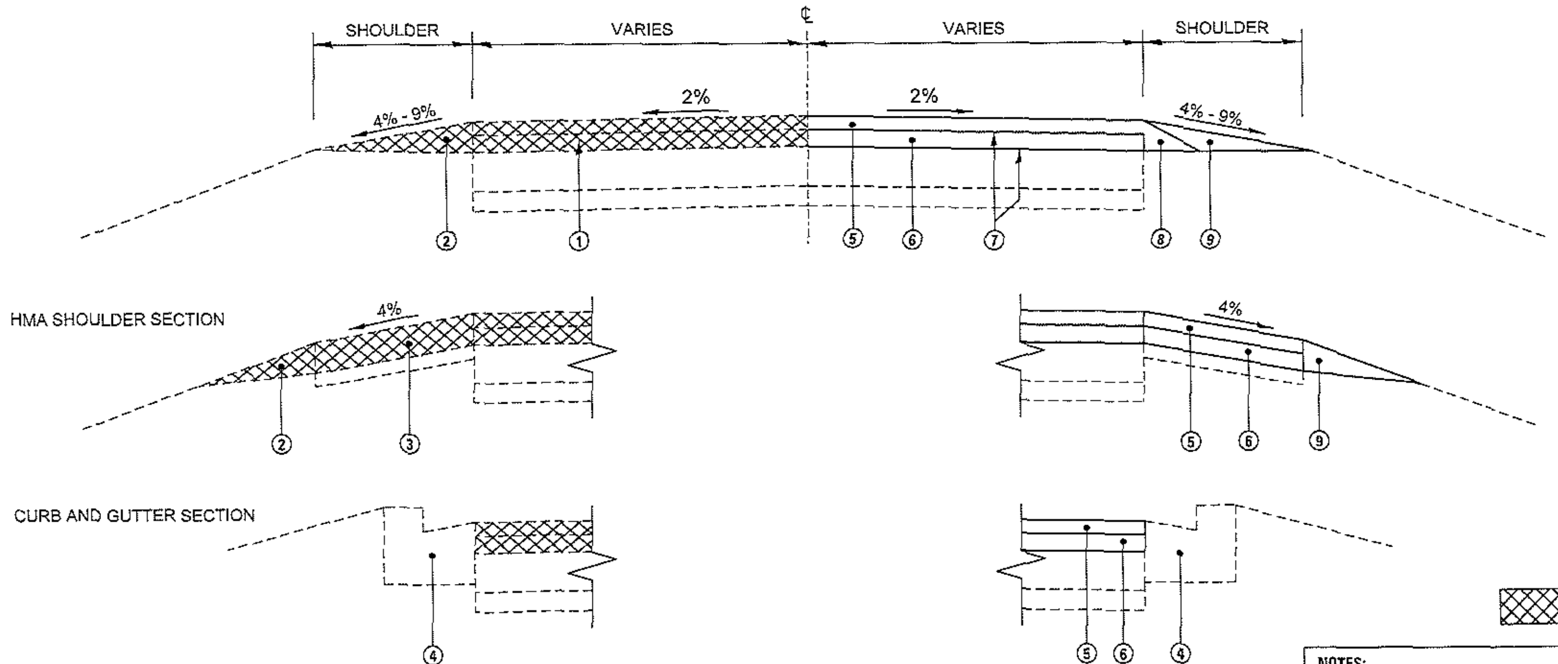
TYPICAL SECTIONS

ADDENDUM #01

Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

2021



- REMOVAL

NOTES:

1) WHERE HMA SHOULDERS EXISTS, REMOVAL AND REPLACEMENT SHALL BE SAME AS MAINLINE.
2) WHERE CURB AND GUTTER EXIST, RESURFACE UP TO EDGE OF GUTTER. ANY DAMAGE TO THE CURB AND GUTTER SHALL BE REPAIR AT CONTRACTOR'S EXPENSE.

TYPICAL SECTION

Kishwaukee Valley and Ackman Roads

LEGEND

1. HOT-MIX ASPHALT SURFACE REMOVAL 3.75"
2. EXISTING AGGREGATE SHOULDERS 3' Aggregate & Landscaped Shoulders
3. EXISTING HOT-MIX ASPHALT SHOULDERS
4. EXISTING COMBINATION CURB AND GUTTER
5. PROPOSED HMA Surface Course, Mix "D", N70 1.5"
6. PROPOSED HMA Binder Course,IL 19.0, N57 2.25"
7. PROPOSED BITUMINOUS MATERIALS (TACK COAT)
8. SAFETY EDGE (TYPICAL) (SEE DETAIL ON SHEET 2 OF 2)
9. PROPOSED AGGREGATE SHOULDERS, TYPE B, (SPECIAL)

REVISION / REMARKS NO.	DESCRIPTION	DATE	BY
1	REVISED ITEM 7.	7/21/2017	CL

DESIGNED - DRAWN - CHECKED - DATE - 12-14-2015

STATE OF ILLINOIS
McHENRY COUNTY
DIVISION OF TRANSPORTATION

McHENRY COUNTY RESURFACING TYPICAL SECTION

ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	21-00527-00-RS	1	2

SHEET 1 OF 2 SHEETS

ADDENDUM #01

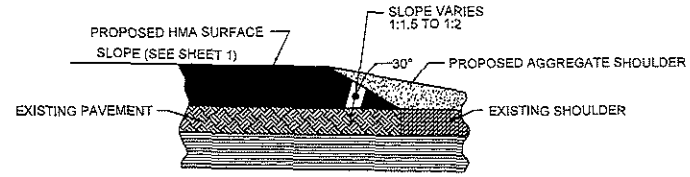
Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

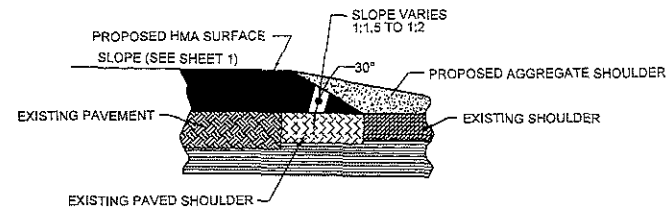
2021

NOTES:
CONTRACTOR SHALL MILL BEFORE PATCHING.
ONLY THE CHECKED MIXTURE TYPE(S) IS/ARE APPLICABLE TO THE PROJECT.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
	MIXTURE TYPE	AIR VOIDS
	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", 1.5"	4% @ 70 GYR.
	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, 2.25"	4% @ 70 GYR.
	CLASS D PATCHES (HMA BINDER IL-19mm) 6"	4% @ 50 GYR.
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19mm)	4% @ GYR.
	LEVELING BINDER (MACHINE METHOD) .75"	4% @ 50 GYR.
	LEVELING BINDER (HAND METHOD) Varies	4% @ 50 GYR.



(AT EDGE OF PAVEMENT)



(AT EDGE OF PAVED SHOULDER)

SAFETY EDGE DETAILS

SAFETY EDGE TREATMENT SHALL BE APPLIED TO PAVED SHOULDER OF 1 FT OR LESS THAT IS ADJACENT TO AGGREGATE/EARTH SHOULDER.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG76-22" AND FOR NON-POLYMERIZED HMA
THE "AC TYPE" SHALL BE "PG 58-28 " UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

USER NAME = eslee	DESIGNED -	REVISION / REMARKS			
	DRAWN -	NO.	DESCRIPTION	DATE	BY
PLOT SCALE = 100.0000 ft / in.	CHECKED -	1	Revised Safety Edge Details.	7/21/17	CL
PLOT DATE = 7/22/2017	DATE - 12-14-2015				

STATE OF ILLINOIS
McHENRY COUNTY
DIVISION OF TRANSPORTATION

McHENRY COUNTY RESURFACING TYPICAL SECTION

SCALE: NTS | SHEET 2 OF 2 SHEETS | STA. | TO STA.

ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	21-00527-00-RS	2	2

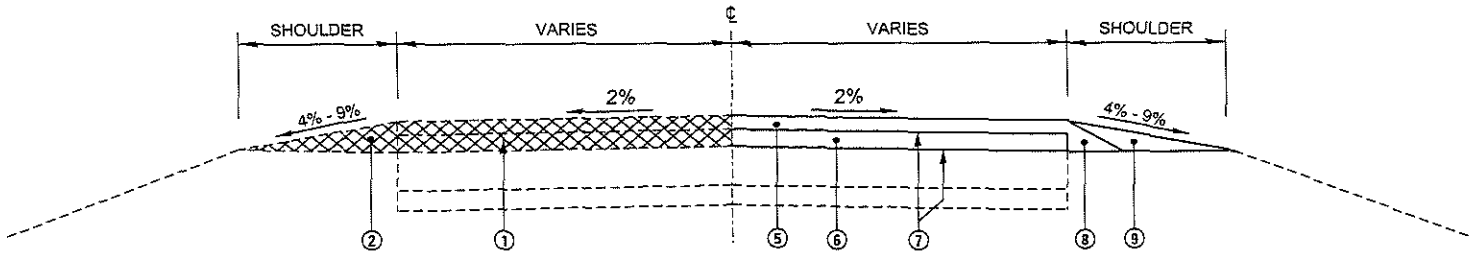
FILE NAME = V:\Design\Standards & Details\MCDOT\Pavement Marking & Resurfacing\MCDOT Detail.dgn

ADDENDUM #01

Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

2021



TYPICAL SECTION

Alternate Vermont Road

NOTES:

1) WHERE HMA SHOULDERS EXISTS, REMOVAL AND REPLACEMENT SHALL BE SAME AS MAINLINE.
2) WHERE CURB AND GUTTER EXIST, RESURFACE UP TO EDGE OF GUTTER. ANY DAMAGE TO THE CURB AND GUTTER SHALL BE REPAIR AT CONTRACTOR'S EXPENSE.

LEGEND

① HOT-MIX ASPHALT SURFACE REMOVAL 2.0"
② EXISTING AGGREGATE SHOULDERS Landscaped Shoulders
③ EXISTING HOT-MIX ASPHALT SHOULDERS
④ EXISTING COMBINATION CURB AND GUTTER
⑤ PROPOSED HMA Surface Course, Mix "D", N70, 2"
⑥ PROPOSED None
⑦ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
⑧ SAFETY EDGE (TYPICAL) (SEE DETAIL ON SHEET 2 OF 2)
⑨ PROPOSED AGGREGATE SHOULDERS, TYPE B, (SPECIAL)

USER NAME = cnelson	DESIGNED -	REVISION / REMARKS			
	DRAWN -	NO.	DESCRIPTION	DATE	BY
PLOT SCALE = 100.0000 ft / in.	CHECKED -	1	REVISED ITEM 7.	7/21/2017	CL
PLOT DATE = 7/21/2017	DATE - 12-14-2015				

STATE OF ILLINOIS
MCHENRY COUNTY
DIVISION OF TRANSPORTATION

McHENRY COUNTY RESURFACING TYPICAL SECTION

SCALE: NTS | SHEET 1 OF 2 SHEETS | STA. | TO STA.

ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	21-00527-00-RS	1	2

ADDENDUM #01

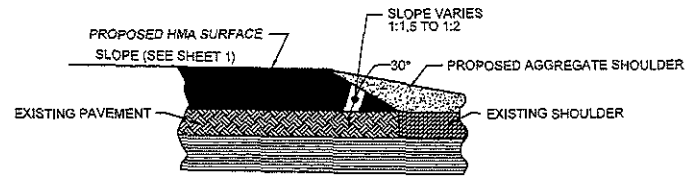
Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

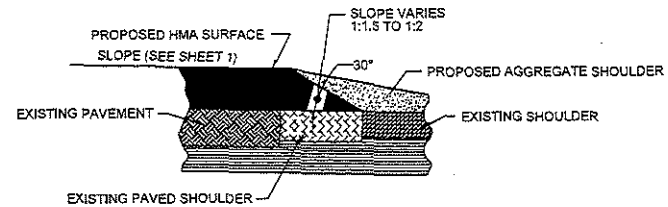
2021

NOTES:
CONTRACTOR SHALL MILL BEFORE PATCHING.
ONLY THE CHECKED MIXTURE TYPE(S) IS/ARE APPLICABLE TO THE PROJECT.

	HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
	MIXTURE TYPE	AIR VOIDS
	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 70, 2"	4% @ 70 GYR.
	HOT-MIX ASPHALT BINDER COURSE, IL-19.0,	4% @ GYR.
	CLASS D PATCHES (HMA BINDER IL-19mm) N50, 6"	4% @ 50 GYR.
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19mm)	4% @ GYR.
	LEVELING BINDER (MACHINE METHOD) N50, 0.75"	4% @ 50 GYR.
	LEVELING BINDER (HAND METHOD) Varies	4% @ 50 GYR.



(AT EDGE OF PAVEMENT)



(AT EDGE OF PAVED SHOULDER)

SAFETY EDGE DETAILS

SAFETY EDGE TREATMENT SHALL BE APPLIED TO PAVED SHOULDER OF 1 FT OR LESS THAT IS ADJACENT TO AGGREGATE/EARTH SHOULDER.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 58-28 " UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

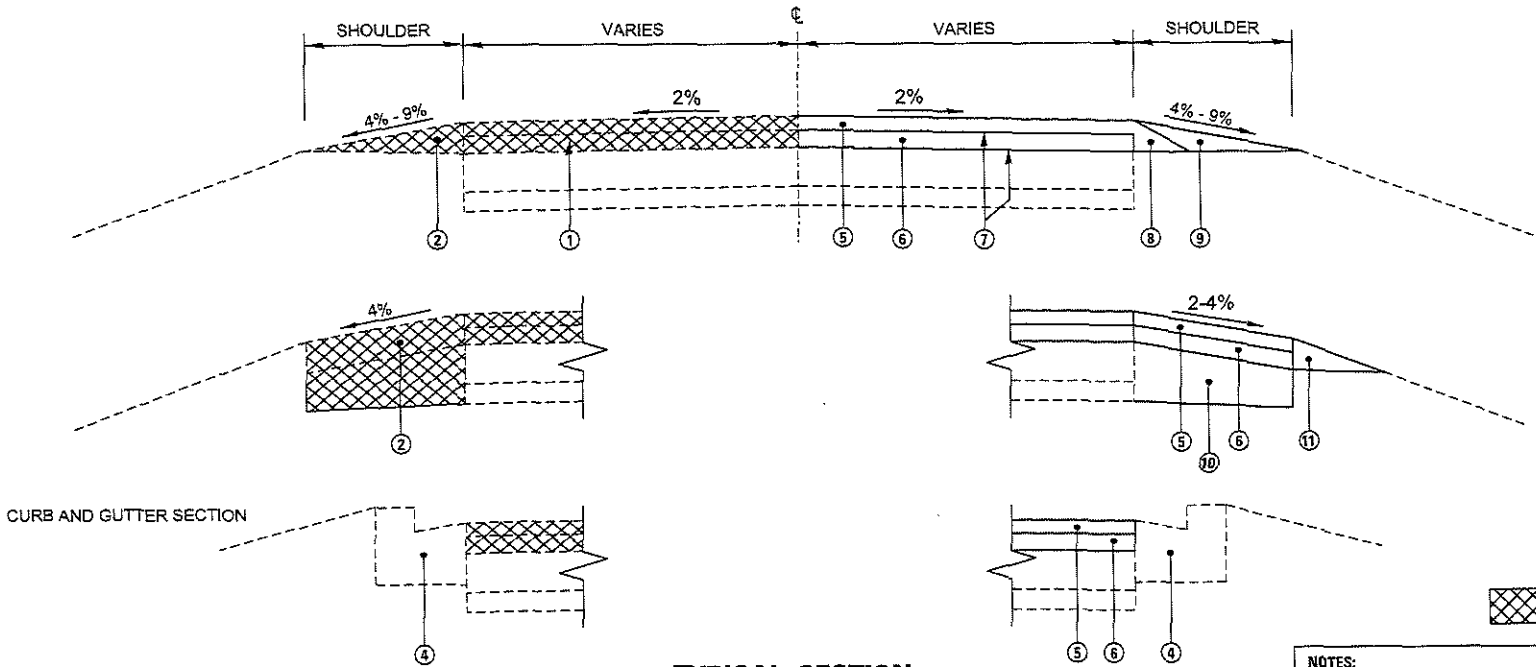
USER NAME = eaton	DESIGNED -	REVISION / REMARKS				STATE OF ILLINOIS MCHENRY COUNTY DIVISION OF TRANSPORTATION	McHENRY COUNTY RESURFACING TYPICAL SECTION	ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	DRAWN -	NO.	DESCRIPTION	DATE	BY						
PLOT SCALE = [illegible] Ft / in.	CHECKED -	1	Revised Safety Edge Details.	7/21/17	CL						
PLOT DATE = 7/21/2017	DATE - 12-14-2015								21-00527-00-RS	2	2
							SCALE: NTS SHEET 2 OF 2 SHEETS STA. TO STA.				

ADDENDUM #01

Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

2021



TYPICAL SECTION

AckmanRoad

NOTES:

1) WHERE HMA SHOULDERS EXISTS, REMOVAL AND REPLACEMENT SHALL BE SAME AS MAINLINE.
2) WHERE CURB AND GUTTER EXIST, RESURFACE UP TO EDGE OF GUTTER. ANY DAMAGE TO THE CURB AND GUTTER SHALL BE REPAIR AT CONTRACTOR'S EXPENSE.

LEGEND

1. HOT-MIX ASPHALT SURFACE REMOVAL 3.75"
2. EXISTING AGGREGATE SHOULDERS 2', 4", 6', 8' & 10'
3. EXISTING HOT-MIX ASPHALT SHOULDERS 2' & 4'
4. EXISTING COMBINATION CURB AND GUTTER
5. PROPOSED HMA Surface Cse., IL 9.5, "Mix D", N70 1.5"
6. PROPOSED HMA Binder Cse. IL 19.0, N70 2.25"
7. PROPOSED BITUMINOUS MATERIALS (TACK COAT)
8. SAFETY EDGE (TYPICAL) (SEE DETAIL ON SHEET 2 OF 2)
9. PROPOSED AGGREGATE SHOULDERS, TYPE B, (SPECIAL)
10. PROPOSED HOT-MIX ASPHALT BASE HMA Binder Cse., 19.0, N50 - 6"
11. PROPOSED SOILS SHOULDER

USER NAME = online	DESIGNED -	REVISION / REMARKS			
	DRAWN -	NO.	DESCRIPTION	DATE	BY
PLOT SCALE = [illegible]	CHECKED -	1	REVISED ITEM 7.	7/21/2017	CL
PLOT DATE = 1/26/2016	DATE - 12-14-2015	2	Modify typ. sect. and add item 11.	1/25/2018	CL

STATE OF ILLINOIS
MCHENRY COUNTY
DIVISION OF TRANSPORTATION

McHENRY COUNTY RESURFACING TYPICAL SECTION

SCALE: NTS | SHEET 1 OF 2 SHEETS | STA. | TO STA.

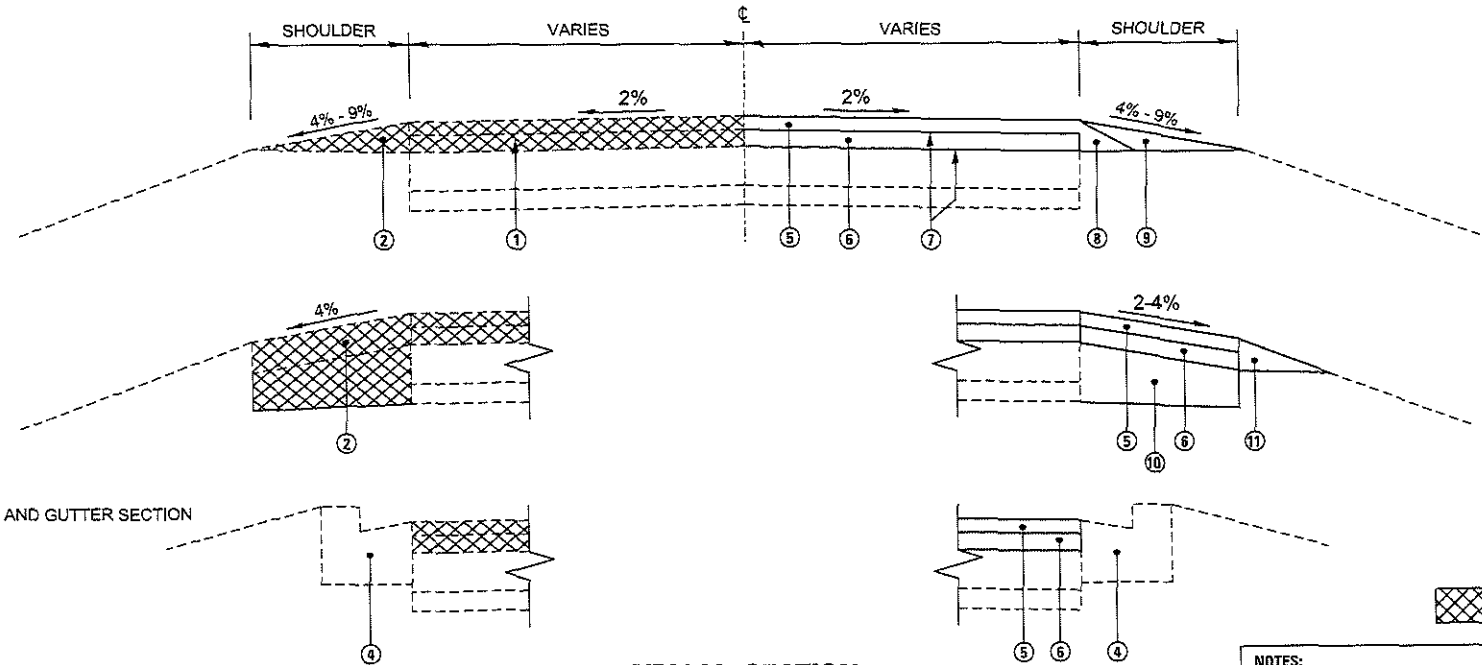
ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	21-00527-00-RS	1	1

ADDENDUM #01

Section # 21-00527-00-RS

McHENRY COUNTY RESURFACING PROGRAM

2021



TYPICAL SECTION

Vermont Road

NOTES:

1) WHERE HMA SHOULDERS EXISTS, REMOVAL AND REPLACEMENT SHALL BE SAME AS MAINLINE.
2) WHERE CURB AND GUTTER EXIST, RESURFACE UP TO EDGE OF GUTTER. ANY DAMAGE TO THE CURB AND GUTTER SHALL BE REPAIR AT CONTRACTOR'S EXPENSE.

LEGEND

① HOT-MIX ASPHALT SURFACE REMOVAL 2.0"
② EXISTING AGGREGATE SHOULDERS 3'&5'
③ EXISTING HOT-MIX ASPHALT SHOULDERS None
④ EXISTING COMBINATION CURB AND GUTTER
⑤ PROPOSED HMA Surface Cse., IL 9.5, "Mix D", N70 2.0"
⑥ PROPOSED
⑦ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
⑧ SAFETY EDGE (TYPICAL) (SEE DETAIL ON SHEET 2 OF 2)
⑨ PROPOSED AGGREGATE SHOULDERS, TYPE B, (SPECIAL)
⑩ PROPOSED HOT-MIX ASPHALT BASE HMA Binder Cse., 19.0, N50 - 6"
⑪ PROPOSED SOILS SHOULDER

USER NAME = aalee	DESIGNED -	REVISION / REMARKS				STATE OF ILLINOIS MCHENRY COUNTY DIVISION OF TRANSPORTATION	McHENRY COUNTY RESURFACING TYPICAL SECTION	ROUTE	SECTION NUMBER	SHEET NO.	TOTAL SHEETS
	DRAWN -	NO.	DESCRIPTION	DATE	BY						
PLOT SCALE = [illegible] ft / in.	CHECKED -	1	REVISED ITEM 7.	7/21/2017	CL						
PLOT DATE = 1/25/2018	DATE - 12-14-2015	2	Modify typ. sect. and add item 11.	1/25/2018	CL		SCALE: NTS SHEET 1 OF 2 SHEETS STA. TO STA.		21-00527-00-RS	1	1

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ADDENDUM # 01

SUMMARY OF QUANTITIES

Summary of Quantities

COUNTY: McHenry
SECTION: 21-00527-00-RS

ADDENDUM #01

Item No.	Code Number	Description	Unit	Total Quantity	Quantities: Base Bid Quantities: Loc. "A" Ackman/3.75"	Quantities: Base Bid Quantities: Loc. "B" Kish.Va/ 3.75"
1	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	260,969.0	120,064.0	140,905.0
2	05640601	AGGREGATE FOR TACK COAT	TON	259.0	119.0	140.0
3	40600525	LEVELING BINDER (HAND METHOD), N50	TON	1,100.0	100.0	1,000.0
4	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	7,500.0	3,500.0	4,000.0
5	40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	22,325.0	10,271.0	12,054.0
6	05640603	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D N70 - 2"	TON			
7	40603340	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D, N70 1.5"	TON	14,481.0	6,662.0	7,819.0
8	44201723	CLASS D PATCHES, TYPE IV, 6 INCH	SQ YD	2,000.0	1,000.0	1,000.0
9	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0	0.5	0.5
10	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL) - ALT BID	L SUM			
11	64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	29,000.0	29,000.0	
12	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD			
13	44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD	161,900.0	68,000.0	93,900.0
14	5640617	CONSTRUCTING TEST STRIP	EACH	2.0	2.0	
15	05670301	SHORT TERM PAVEMENT MARKING (SPECIAL)	FOOT	237,498.0	83,607.0	153,891.0
16	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	388.0	388.0	
17	X7810300	RECESSED REFLECTIVE PAVMENT MARKER	EACH	777.0	777.0	
18	05678001	GROOVED THERMOPLASTIC PAVT MARK - L&S	SQ FT	1,112.8	1,112.8	
19	05678002	GROOVED THERMOPLASTIC PAVT MARK - LINE 4"	FOOT	140,003.0	71,574.0	68,429.0
20	05678003	GROOVED THERMOPLASTIC PAVT MARK - LINE 6"	FOOT	4,157.0	4,157.0	
21	05678004	GROOVED THERMOPLASTIC PAVT MARK - LINE 8"	FOOT	100.0	100.0	
22	05678005	GROOVED THERMOPLASTIC PAVT MARK - LINE 12"	FOOT	1,725.0	1,725.0	
23	05678006	GROOVED THERMOPLASTIC PAVT MARK - LINE 24"	FOOT	172.0	172.0	
24	05600001	RECLAMITE EMUL MALTENE-BASED REJUVENATING	SQ YD	172,393.0	79,313.0	93,080.0
25	05644001	HOT-MIX ASPHALT SURFACE REMOVAL, ADJUST SP 1/2"	SQ YD	2,000.0	1,000.0	1,000.0
26	48101200	AGGREGATE SHOULDERS, TYPE B	TON	1,541.0	1,541.0	
27	20200100	EARTH EXCAVATION	CU YD	45.0	45.0	
28	56406210	CONTROLLED LOW STRENGTH MATERIAL	CU YD			
29	5640609	EXCAVATING AND GRADING EXISTING SHOULDER-2'	UNIT	46.0	46.0	
30	5640619	EXCAVATING AND GRADING EXISTING SHOULDER-3'	UNIT			
31	5640620	EXCAVATING AND GRADING EXISTING SHOULDERS-4'	UNIT	47.0	47.0	
32	05640627	EXCAVATING AND GRADING EXISTING SHOULDERS-5'	UNIT			
33	5640610	EXCAVATING AND GRADING EXISTING SHOULDER-6'	UNIT	120.0	120.0	
34	5640636	EXCAVATING AND GRADING EXISTING SHOULDER-8'	UNIT	2.0	2.0	
35	05640628	EXCAVATING AND GRADING EXISTING SHOULDER-10'	UNIT	2.0	2.0	
36	5640607	HMA SHOULDERS, 6 INCH - 2 FEET WIDE	TON	365.0	365.0	
37	5640623	HMA SHOULDERS, 6 INCH - 3 FEET WIDE	TON			
38	5640624	HMA SHOULDERS, 6 INCH - 4 FEET WIDE	TON	710.0	710.0	
39	05640629	HMA SHOULDERS, 6 INCH - 5 FEET WIDE	TON			
40	5640608	HMA SHOULDERS, 6 INCH - 6 FEET WIDE	TON	2,760.0	2,760.0	
41	5640635	HMA SHOULDERS, 6 INCH - 8 FEET WIDE	TON	61.0	61.0	
42	05640630	HMA SHOULDERS, 6 INCH - 10 FEET WIDE	TON	85.0	85.0	
43	05640631	ADA RAMP REMOVAL & REPLACEMENT	DOL	1.0	1.0	
44	60201105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH	2.0	2.0	
45	55106035	STORM SEWER INSTALLATION 15"	FOOT	50.0	50.0	
46	Z0004542	HOT-MIX ASPHALT REMOVAL (SPECIAL)	SQ YD	250.0	250.0	
47	25000200	SEEDING, CLASS 2	ACRE	8.9	1.5	7.4
48	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	525.0	125.0	400.0
49	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	525.0	125.0	400.0
50	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	525.0	125.0	400.0
51	25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	45,093.0	9,826.0	35,267.0
52	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	45,093.0	9,826.0	35,267.0
53	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	260.0	260.0	
54	5640637	B6.12 CONCRETE CURB & GUTTER	FOOT	625.0	625.0	
55	05640632	CONCRETE CURB - DEPRESSED	FOOT	40.0	40.0	
56	5640638	PEDESTRIAN PUSH BUTTON RELOCATION	L SUM	1.0	1.0	
57	28100105	STONE RIPRAP, CLASS A3	SQ YD	135.0	135.0	
58	28200200	FILTER FABRIC	SQ YD	135.0	135.0	

Summary of Quantities

COUNTY: McHenry
SECTION: 21-00527-00-RS

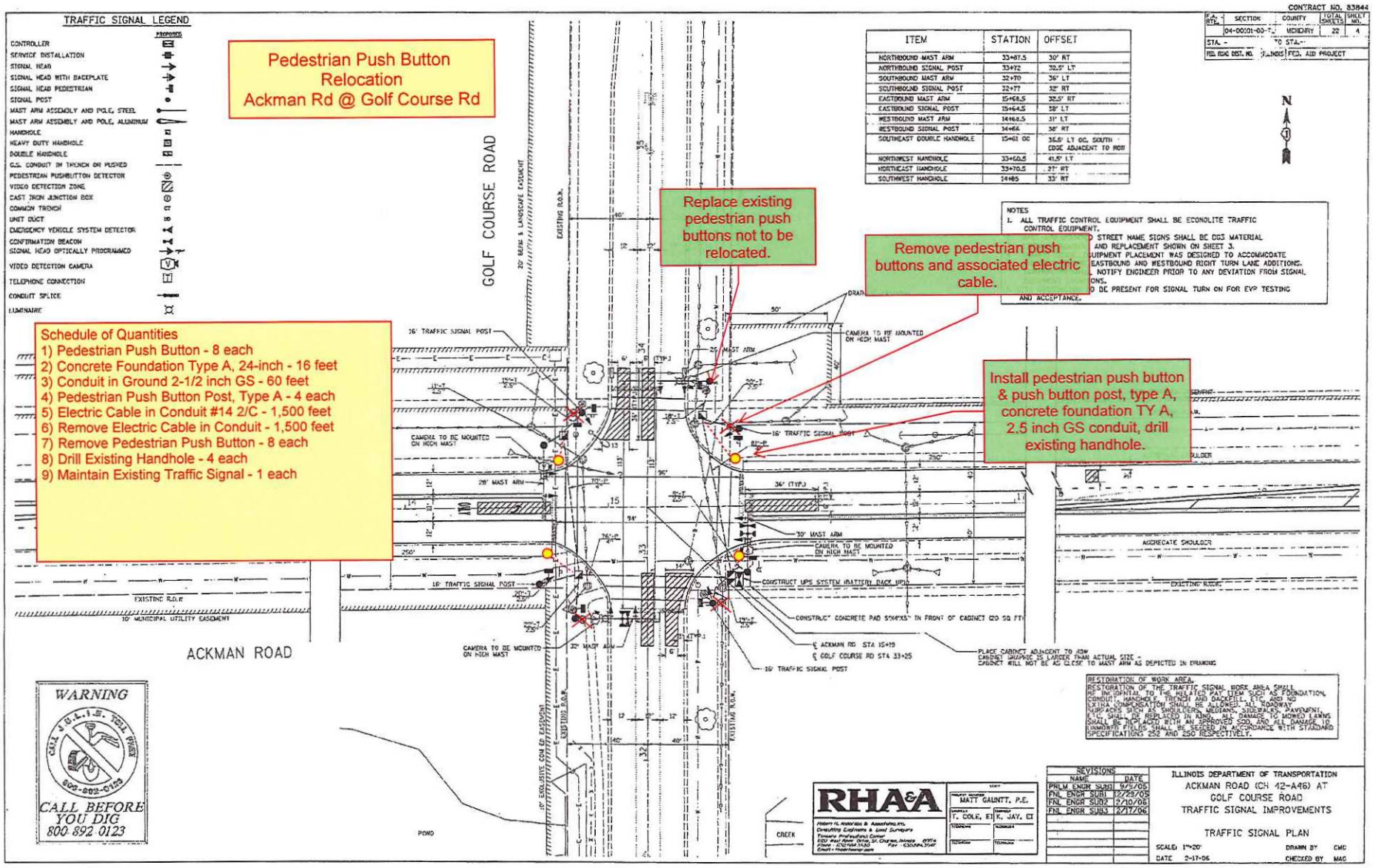
ADDENDUM #01

Item No.	Code Number	Description	Unit	Total Quantity	Quantities Bid Quantities Alt. Bid Loc. "C" Vermont/2"							
1	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	83,395.0	83,395.0							
2	05640601	AGGREGATE FOR TACK COAT	TON	99.0	99.0							
3	40600525	LEVELING BINDER (HAND METHOD), N50	TON	100.0	100.0							
4	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	2,600.0	2,600.0							
5	40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON									
6	05640603	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D N70 - 2"	TON	7,404.0	7,404.0							
7	40603340	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D, N70 1.5"	TON									
8	44201723	CLASS D PATCHES, TYPE IV, 6 INCH	SQ YD	250.0	250.0							
9	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM									
10	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL) - ALT BID	L SUM	1.0	1.0							
11	64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	34,000.0	34,000.0							
12	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	51,000.0	51,000.0							
13	44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD									
14	5640617	CONSTRUCTING TEST STRIP	EACH	1.0	1.0							
15	05670301	SHORT TERM PAVEMENT MARKING (SPECIAL)	FOOT	24,655.0	24,655.0							
16	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH									
17	X7810300	RECESSED REFLECTIVE PAVMENT MARKER	EACH	105.0	105.0							
18	05678001	GROOVED THERMOPLASTIC PAVT MARK - L&S	SQ FT									
19	05678002	GROOVED THERMOPLASTIC PAVT MARK - LINE 4"	FOOT	51,280.0	51,280.0							
20	05678003	GROOVED THERMOPLASTIC PAVT MARK - LINE 6"	FOOT									
21	05678004	GROOVED THERMOPLASTIC PAVT MARK - LINE 8"	FOOT									
22	05678005	GROOVED THERMOPLASTIC PAVT MARK - LINE 12"	FOOT									
23	05678006	GROOVED THERMOPLASTIC PAVT MARK - LINE 24"	FOOT									
24	05600001	RECLAMITE EMUL MALTENE-BASED REJUVENATING	SQ YD	66,108.0	66,108.0							
25	05644001	HOT-MIX ASPHALT SURFACE REMOVAL, ADJUST SP 1/2"	SQ YD	1,000.0	1,000.0							
26	48101200	AGGREGATE SHOULDERS, TYPE B	TON									
27	20200100	EARTH EXCAVATION	CU YD									
28	56406210	CONTROLLED LOW STRENGTH MATERIAL	CU YD	50.0	50.0							
29	5640609	EXCAVATING AND GRADING EXISTING SHOULDER-2'	UNIT									
30	5640619	EXCAVATING AND GRADING EXISTING SHOULDER-3'	UNIT	137.0	137.0							
31	5640620	EXCAVATING AND GRADING EXISTING SHOULDERS-4'	UNIT									
32	05640627	EXCAVATING AND GRADING EXISTING SHOULDERS-5'	UNIT	190.0	190.0							
33	5640610	EXCAVATING AND GRADING EXISTING SHOULDER-6'	UNIT									
34	5640636	EXCAVATING AND GRADING EXISTING SHOULDER-8'	UNIT									
35	05640628	EXCAVATING AND GRADING EXISTING SHOULDER-10'	UNIT									
36	5640607	HMA SHOULDERS, 6 INCH - 2 FEET WIDE	TON									
37	5640623	HMA SHOULDERS, 6 INCH - 3 FEET WIDE	TON	1,600.0	1,600.0							
38	5640624	HMA SHOULDERS, 6 INCH - 4 FEET WIDE	TON									
39	05640629	HMA SHOULDERS, 6 INCH - 5 FEET WIDE	TON	3,700.0	3,700.0							
40	5640608	HMA SHOULDERS, 6 INCH - 6 FEET WIDE	TON									
41	5640635	HMA SHOULDERS, 6 INCH - 8 FEET WIDE	TON									
42	05640630	HMA SHOULDERS, 6 INCH - 10 FEET WIDE	TON									
43	05640631	ADA RAMP REMOVAL & REPLACEMENT	DOL									
44	60201105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH									
45	55106035	STORM SEWER INSTALLATION 15"	FOOT									
46	Z0004542	HOT-MIX ASPHALT REMOVAL (SPECIAL)	SQ YD									
47	25000200	SEEDING, CLASS 2	ACRE	4.6	4.6							
48	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	300.0	300.0							
49	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	300.0	300.0							
50	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	300.0	300.0							
51	25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	22,600.0	22,600.0							
52	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	22,600.0	22,600.0							
53	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT									
54	5640637	B6.12 CONCRETE CURB & GUTTER	FOOT									
55	05640632	CONCRETE CURB - DEPRESSED	FOOT									
56	5640638	PEDESTRIAN PUSH BUTTON RELOCATION	L SUM									
57	28100105	STONE RIPRAP, CLASS A3	SQ YD									
58	28200200	FILTER FABRIC	SQ YD									

ADDENDUM # 01

PEDESTIAN PUSH BUTTON RELOCATION

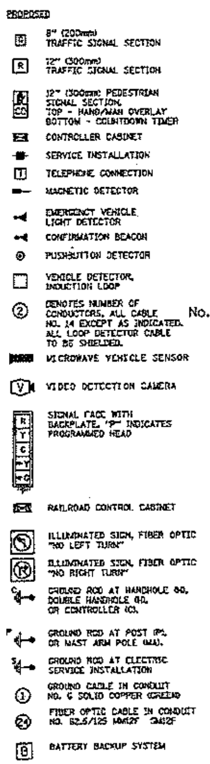
ADDENDUM #01

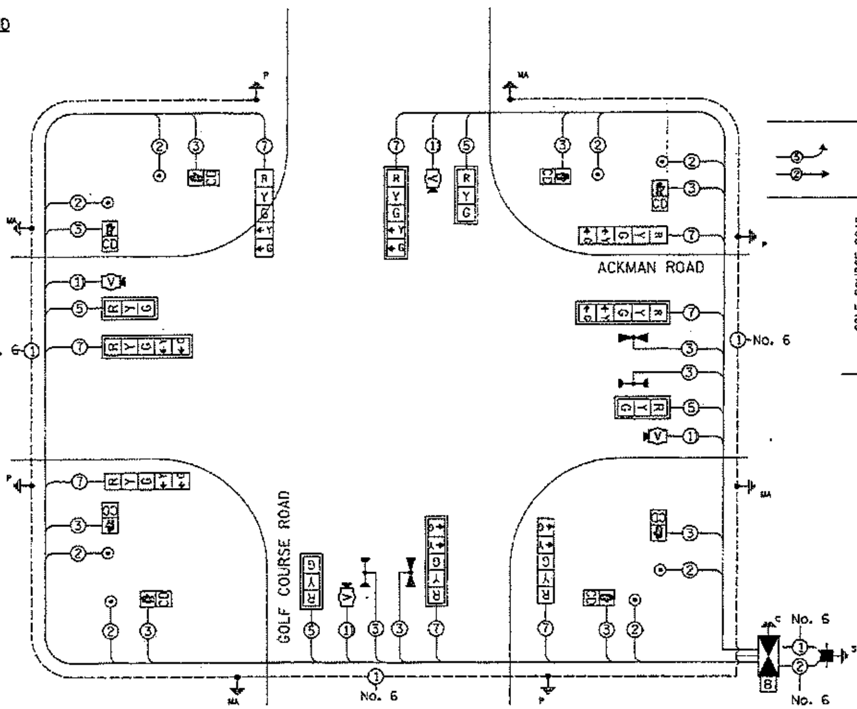

TRAFFIC SIGNAL LEGEND
Pedestrian Push Button Relocation
Ackman Rd @ Golf Course Rd
Replace existing pedestrian push buttons not to be relocated.
Remove pedestrian push buttons and associated electric cable.
Install pedestrian push button & push button post, type A, concrete foundation TY A, 2.5 inch GS conduit, drill existing handhole.
Schedule of Quantities
1) Pedestrian Push Button - 8 each
2) Concrete Foundation Type A, 24-inch - 16 feet
3) Conduit in Ground 2-1/2 inch GS - 60 feet
4) Pedestrian Push Button Post, Type A - 4 each
5) Electric Cable in Conduit #14 2/C - 1,500 feet
6) Remove Electric Cable in Conduit - 1,500 feet
7) Remove Pedestrian Push Button - 8 each
8) Drill Existing Handhole - 4 each
9) Maintain Existing Traffic Signal - 1 each
GOLF COURSE ROAD
ACKMAN ROAD
CONTRACT NO. 83844
ILLINOIS DEPARTMENT OF TRANSPORTATION
ACKMAN ROAD (CH 12-A46) AT
GOLF COURSE ROAD
TRAFFIC SIGNAL IMPROVEMENTS
TRAFFIC SIGNAL PLAN
RHA&A
WARNING
CALL J.U.L.I.E. TOLL FREE
811 OR 1-800-892-0123
CALL BEFORE YOU DIG
800 892 0123

CONTRACT NO. 83844

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	04-00101-00-TL	MCHENRY	22	5
STA. -		TO STA.-		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

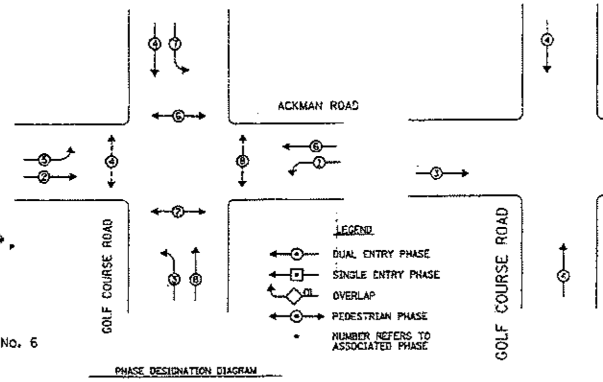
CABLE PLAN LEGEND





CABLE PLAN

NOTE:
1. ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE TRAFFIC CONTROL EQUIPMENT.
2. VIDEO DETECTION CAMERA SHALL BE AUTOSCOPE SOLO PRO 2
3. VIDEO DETECTION CABLE SHALL BE BELDEN 5 1/2 PR #16.
4. CONTROLLER SHALL BE ECONOLITE ASC3
5. TYPE IV CABINET
6. EVP CABLE SHALL BE 3C #20, TWISTED, SHIELDED
7. CONFIRMATION BEACON CABLE SHALL BE 3C #14
8. ALL PEDESTRIAN HEADS SHALL BE COUNTDOWN HEADS. COUNTDOWN TIMER IN BOTTOM SECTION, TOP SECTION FULL HAND/MAN OVERLAY.
9. GROUNDING OF SIGNAL EQUIPMENT INCIDENTAL TO FOUNDATION PAY ITEM.
10. CONFIRMATION BEACON SHALL BE LED.



PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

SCHEDULE OF QUANTITIES

PAY CODE	DESCRIPTION	UNIT	QUANTITY
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	244
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	5
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	285
81400400	CONCRETE HANDHOLE	EACH	3
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1036
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1345
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	625
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1220
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	429
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
87702860	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	EACH	1
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8
XX004679	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
XX006567	ELECTRIC CABLE IN CONDUIT, SIGNAL BELDEN 5 1/2 PAIR NO. 16	FOOT	785
X0323370	TRAFFIC SIGNAL BATTERY BACKUP	EACH	1
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	249
X8800020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
X8800040	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
X8800045	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
X0003982	VIDEO VEHICLE DETECTION SYSTEM	L SUM	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS x	WATTAGE INCAND.	WATTAGE LED	x %OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.25	48.0
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	100		1.00	100.0
CAMERA	4	20		1.00	80.0
				TOTAL =	650.0

ENERGY COSTS TO:
CITY OF CRYSTAL LAKE
100 W. MUNICIPAL COMPLEX
CRYSTAL LAKE, IL 60039-0597
ENERGY SUPPLY CONTACT: ELLIE SARALLO
PHONE: 847.608.2400
COMPANY: ComEd

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

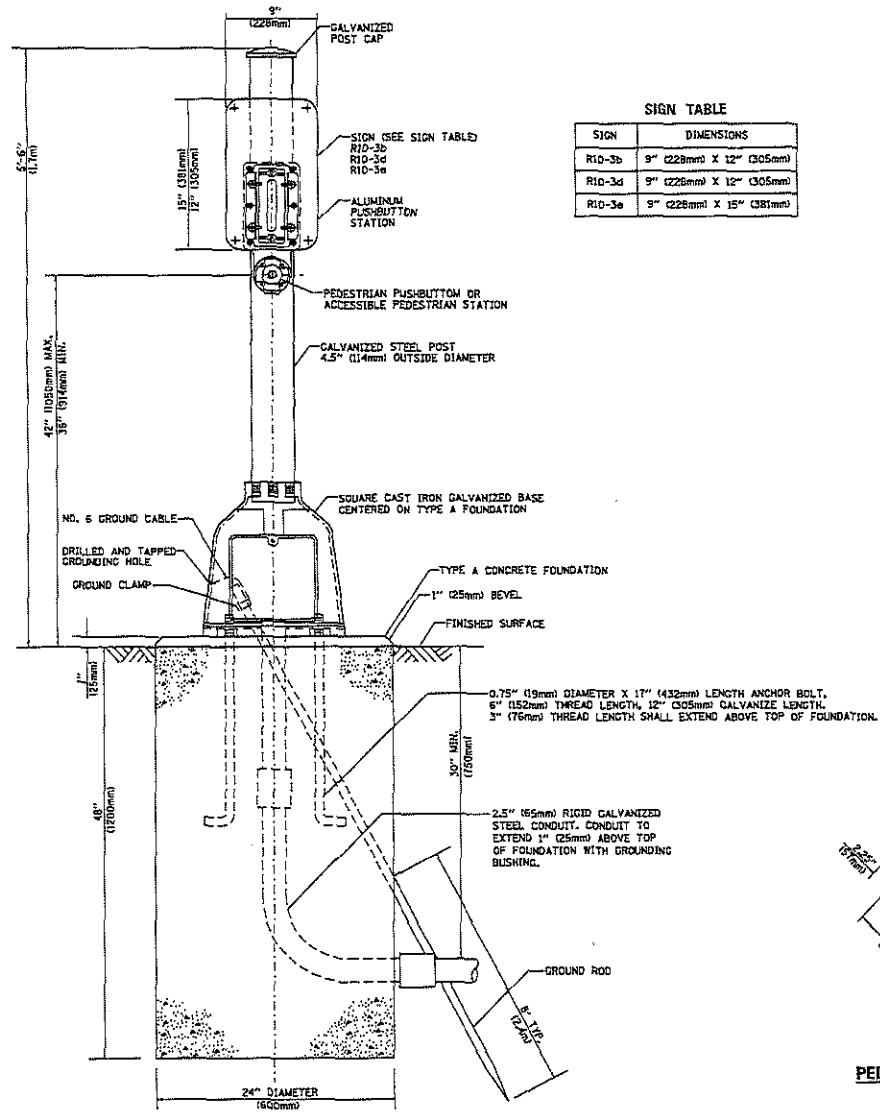
RHA&A
MATT GAUNTT, P.E.
T. COLE, EI | K. JAY, EI

REVISION NAME	DATE
PRLM ENGR SUBS	5/9/05
FNL ENGR SUBS	12/29/05
FNL ENGR SUBS	12/10/06
FNL ENGR SUBS	12/1?/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
ACKMAN ROAD (CH 42-A46) AT
GOLF COURSE ROAD
TRAFFIC SIGNAL IMPROVEMENTS

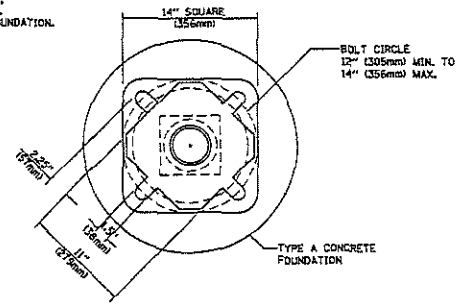
CABLE PLAN AND PHASE DIAGRAM

SCALE: NONE DRAWN BY CMC
DATE 2-17-06 CHECKED BY MAO



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

TS SHT NO. 7

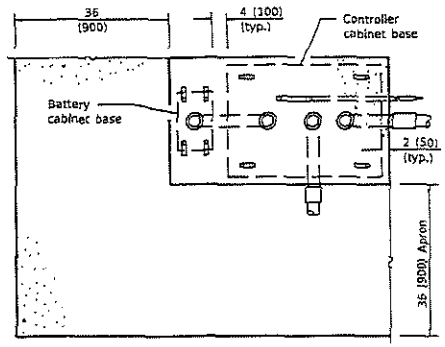
FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE =	CHECKED -	REVISED -
	PLOT DATE = 5/17/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

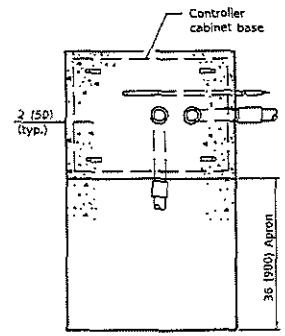
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. | TO STA.

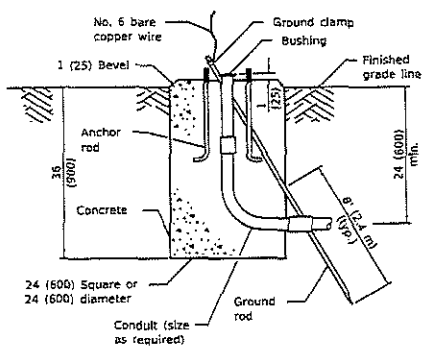
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	(110R-1N	COOK		
	TS-85	CONTRACT NO. XXXXX		
	ILLINOIS FED. AID PROJECT			



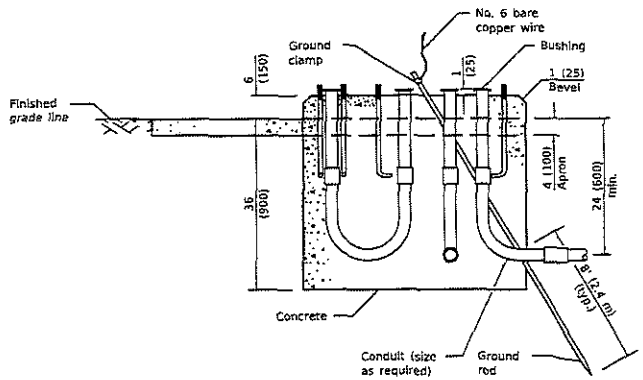
TOP VIEW



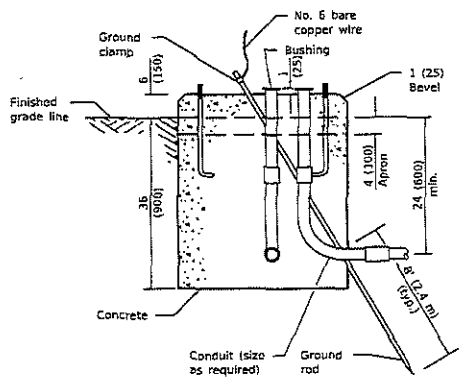
TOP VIEW



TYPE A



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF OPERATIONS

APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-10

DATE	REVISIONS
1-1-15	Revised TYPE E detail.
1-1-12	Replaced rebar No.'s
	with "Vertical" for TYPE E
	foundation detail.

CONCRETE FOUNDATION DETAILS

(Sheet 1 of 2)

STANDARD 878001-10

SIGN SHOP DRAWING SUBMITTAL
Effective: January 22, 2013
Revised: July 1, 2015
720.02TS

Add the following paragraph to Article 720.03 of the Standard Specifications:

Shop drawings will be required, according to Article 105.04, for all Arterials/Expressways signs except standard highway signs covered in the MUTCD. Shop drawings shall be submitted to the Engineer for review and approval prior to fabrication. The shop drawings shall include dimensions, letter sizing, font type, colors and materials.

TRAFFIC SIGNAL GENERAL REQUIREMENTS
Effective: May 22, 2002
Revised: March 25, 2016
800.01TS

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations.

- All material furnished shall be new unless otherwise noted herein.
- Traffic signal construction and maintenance work shall be performed by personnel holding current IMSA Traffic Signal Technician Level II certification. A copy of the certification shall be immediately available upon request of the Engineer.
- The work to be done under this contract consists of furnishing, installing and maintaining all traffic signal work and items as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

Definitions of Terms.
Add the following to Section 101 of the Standard Specifications:

101.56 Vendor. Company that sells a particular type of product directly to the contractor or the Equipment Supplier.

101.57 Equipment supplier. Company that supplies, represents and provides technical support for IDOT District One approved traffic signal controllers and other related equipment. The Equipment Supplier shall be located within IDOT District One and shall:

- Be full service with on-site facilities to assemble, test and trouble-shoot traffic signal controllers and cabinet assemblies.
- Maintain an inventory of IDOT District One approved controllers and cabinets.
- Be staffed with permanent sales and technical personnel able to provide traffic signal controller and cabinet expertise and support.
- Technical staff shall hold current IMSA Traffic Signal Technician Level III certification and shall attend traffic signal turn-ons and inspections with a minimum 14 calendar day notice.

Submittals.
Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted electronically through the District's SharePoint System unless directed otherwise by the Engineer. Electronic material submittals shall follow the District's Traffic Operations Construction Submittals guidelines. General requirements include:

1. All material approval requests shall be made prior to or no later than the date of the preconstruction meeting. A list of major traffic signal items can be found in Article

801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.

2. Product data and shop drawings shall be assembled by pay item. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.
3. Original manufacturer published product data and shop drawing sheets with legible dimensions and details shall be submitted for review.
4. When hard copy submittals are necessary, four complete copies of the manufacturer's descriptive literatures and technical data for the traffic signal materials shall be submitted. For hard copy or electronic submittals, the descriptive literature and technical data shall be adequate for determining whether the materials meet the requirements of the plans and specifications. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.
5. When hard copy submittals are necessary for structural elements, four complete copies of the shop drawings for the mast arm assemblies and poles, and the combination mast arm assemblies and poles showing, in detail, the fabrication thereof and the certified mill analyses of the materials used in the fabrication, anchor rods, and reinforcing materials shall be submitted.
6. Partial or incomplete submittals will be returned without review.
7. Certain non-standard mast arm poles and special structural elements will require additional review from IDOT's Central Office. Examples include ornamental/decorative, non-standard length mast arm pole assemblies and monotube structures. The Contractor shall account for the additional review time in his schedule.
8. The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence, catalog cuts and mast arm poles and assemblies drawings.
9. Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections, and/or tests of material shall be complete with all test data, dates, and times.
10. After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with contract and specification requirements.
11. The Contractor shall secure approved materials in a timely manner to assure construction schedules are not delayed.
12. All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.

13. Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.
14. Contractor shall not order major equipment such as mast arm assemblies prior to Engineer approval of the Contractor marked proposed traffic signal equipment locations to assure proper placement of contract required traffic signal displays, push buttons and other facilities. Field adjustments may require changes in proposed mast arm length and other coordination.

Marking Proposed Locations.
Revise "Marking Proposed Locations for Highway Lighting System" of Article 801.09 to read "Marking Proposed Locations for Highway Lighting System and Traffic Signals."

Add the following to Article 801.09 of the Standard Specifications:

It shall be the contractor's responsibility to verify all dimensions and conditions existing in the field prior to ordering materials and beginning construction. This shall include locating the mast arm foundations and verifying the mast arms lengths.

Inspection of Electrical Systems.
Add the following to Article 801.10 of the Standard Specifications:

(c) All cabinets including temporary traffic signal cabinets shall be assembled by an approved equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier's facility prior to field installation, at no extra cost to this contract.

Maintenance and Responsibility.
Revise Article 801.11 of the Standard Specifications to read:

a. Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, Municipality or Transit Agency in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the Contractor. The Contractor shall supply the Engineer, Area Traffic Signal Maintenance and Operations Engineer, IDOT

ComCenter and the Department's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.

b. Automatic Traffic Enforcement equipment such as red lighting running and railroad crossing camera systems are owned and operated by others and the Contractor shall not be responsible for maintaining this equipment.

c. Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

d. When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. The Department will attempt to full-fill the Contractor's inspection date request(s), however workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested inspection date(s) cannot be scheduled by the Department. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

e. The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

f. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals and other equipment noted herein. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to

provide this service will result in liquidated damages of $1000 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of $1000 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The Department may inspect any signalizing device on the Department's highway system at any time without notification.

g. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

h. The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.

i. The Contractor shall maintain the traffic signal in normal operation during short or long term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power to critical locations shall not be for separately but shall be included in the contract.

Damage to Traffic Signal System.
Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices are only allowed at the bases pf post and mast arms.

Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the

Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause, shall be the responsibility of the municipality or the Automatic Traffic Enforcement company per Permit agreement.

Traffic Signal Inspection (TURN-ON).
Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the Equipment Supplier prior to the Department's "turn-on" field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will attempt to full-fill the Contractor's turn-on and inspection date request(s), however workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested turn-on and inspection date(s) cannot be scheduled by the Department. The Department will not grant a field inspection until written or electronic notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Preemption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to assist with traffic control at the time of testing.

The Contractor shall provide a representative from the control equipment vendor's office who is knowledgeable of the cabinet design and controller functions to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons.

Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

The District requires the following Final Project Documentation from the Contractor at traffic signal turn-ons in electronic format in addition to hard copies where noted. A CD/DVD shall be submitted with separate folders corresponding to each numbered title below. The CD/DVD shall be labelled with date, project location, company and contract or permit number. Record Drawings, Inventory and Material Approvals shall be submitted prior to traffic signal turn-on for review by the Department as described here-in.

Final Project Documentation:

1. Record Drawings. Signal plans of record with field revisions marked in red ink. One hard copy set of 11"x17" record drawings shall also be provided.
2. Inventory. Inventory of new and existing traffic signal equipment including cabinet types and devices within cabinets in an Excel spread sheet format. One hard copy shall also be provided.
3. Pictures. Digital pictures of a minimum 12M pixels of each intersection approach showing all traffic signal displays and equipment. Pictures shall include controller cabinet equipment in enough detail to clearly identify manufacture and model of major equipment.
4. Field Testing. Written notification from the Contractor and the equipment vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13). One hard copy of all contract required performance measurement testing shall also be provided.
5. Materials Approval. The material approval letter. A hard copy shall also be provided.
6. Manuals. Operation and service manuals of the signal controller and associated control equipment. One hard copy shall also be provided.
7. Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies 11" x 17" of the cabinet wiring diagrams shall be provided along with electronic pdf and dgn files of the cabinet wiring diagram. Five hard copies of the cable logs and electronic excel files shall be provided with cable #, number of conductors and spares, connected device/signal head and intersection location.
8. Controller Programming Settings. The traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The controller manufacturer shall also supply a printed form, not to exceed 11" x 17" for recording that data noted above. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must

be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.

9. Warrantees and Guarantees. All manufacturer and contractor warrantees and guarantees required by Article 801.14.
10. GPS coordinate of traffic signal equipment as describe in the Record Drawings section herein.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on", completeness of the required documentation and successful operation during a minimum 72 hour "burn-in" period following activation of the traffic signal. If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of $500 per month per incident.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements shall be subject to removal and disposal at the Contractor's expense.

Record Drawings.

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

"When the work is complete, and seven days before the request for a final inspection, the reduced-size set of contract drawings, stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. If the contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with TS# and location name in its file name.

In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF

files. Specific part or model numbers of items which have been selected shall be clearly visible."

As part of the record drawings, the Contractor shall inventory all traffic signal equipment, new or existing, on the project and record information in an Excel spreadsheet. The inventory shall include equipment type, model numbers, software manufacturer and version and quantities.

Add the following to Article 801.16 of the Standard Specifications:

"In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Rail Road Bungalow
- UPS
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations
- Conduit Crossings

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- File shall be named: TSXXX-YY-MM-DD (i.e. TS22157_15-01-01)
- Each intersection shall have its own file
- Row 1 should have the location name (i.e. IL 31 @ Klausen)
- Row 2 is blank
- Row 3 is the headers for the columns
- Row 4 starts the data
- Column A (Date) – should be in the following format: MM/DD/YYYY
- Column B (Item) – as shown in the table below
- Column C (Description) – as shown in the table below
- Column D and E (GPS Data) – should be in decimal form, per the IDOT special provisions

Examples:

Date	Item	Description	Latitude	Longitude
01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571
01/01/2015	CNCR (Conduit Crossing)	4-inch IL 31 n/o of Klausen	41.588888	-87.794440

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 1 foot. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 1 foot accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years."

Delete the last sentence of the 3rd paragraph of Article 801.16.

Locating Underground Facilities.
Revise Section 803 to the Standard Specifications to read:

IDOT traffic signal facilities are not part of any of the one-call locating service such as J.U.L.I.E or Digger. If this Contract requires the services of an Electrical Contractor, the Contractor shall

be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

Restoration of Work Area.
Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/un-energized signal sections and visors. Covers shall be made of outdoor fabric with urethane coating for repelling water, have elastic fully sewn around the cover ends for a tight fit over the visor, and have a minimum of two straps with buckles to secure the cover to the backplate. A center mesh strip allows viewing without removal for signal status testing purposes. Covers shall include a message indicating the signal is not in service.

UNDERGROUND RACEWAYS
Effective: May 22, 2002
Revised: July 1, 2015
810.02TS

Revise Article 810.04 of the Standard Specifications to read:

> "Installation. All underground conduits shall have a minimum depth of 30-inches (700 mm) below the finished grade."

Add the following to Article 810.04 of the Standard Specifications:

> "All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans."

Add the following to Article 810.04 of the Standard Specifications:

> "All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum or 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.
>
> The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.
>
> The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

MAINTENANCE OF EXISTING TRAFFIC SIGNAL AND FLASHING BEACON INSTALLATION
Effective: May 22, 2002
Revised: July 1, 2015
850.01TS

General.

1. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof. If Contract work is started prior to a traffic signal inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection.

2. The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance. A copy of the certification shall be immediately available upon request of the Engineer.

3. This item shall include maintenance of all traffic signal equipment and other connected and related equipment such as flashing beacons, emergency vehicle pre-emption equipment, master controllers, uninterruptable power supply (UPS and batteries), PTZ cameras, vehicle detection, handholes, lighted signs, telephone service installations, communication cables, conduits to adjacent intersections, and other traffic signal equipment.

4. Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers, radios and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

5. Maintenance shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment. This equipment is operated and maintained by the local municipality and should be de-activated while on contractor maintenance.

6. The energy charges for the operation of the traffic signal installation shall be paid for by the Contractor.

Maintenance.

1. The Contractor shall check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. The Contractor shall check signal system communications and phone lines to assure proper operation. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs. Prior to the traffic signal maintenance transfer, the contractor shall supply a detailed maintenance

schedule that includes dates, locations, names of electricians providing the required checks and inspections along with any other information requested by the Engineer.

2. The Contractor is advised that the existing and/or span wire traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

3. The Contractor shall provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

4. The Contractor shall provide the Engineer with 2 (two) 24 hour telephone numbers for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

5. Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

6. The Contractor shall respond to all emergency calls from the Department or others within one (1) hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the State's Electrical Maintenance Contractor perform the maintenance work. The Contractor shall be responsible for all of the State's Electrical Maintenance Contractor's costs and liquidated damages of $1000 per day per occurrence. The State's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or

the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

7. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

8. Equipment included in this item that is damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

9. Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause, shall be the responsibility of the municipality or the Automatic Traffic Enforcement Company per Permit agreement.

10. The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.

11. The Contractor shall maintain the traffic signal in normal operation during short or long term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power to critical locations shall not be paid for separately but shall be included in the contract.

12. Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

Basis of Payment.

This work will be paid for at the contract unit price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION. Each intersection will be paid for separately. Maintenance of a standalone and or not connected flashing beacon shall be paid for at the contract unit price for MAINTENANCE OF EXISITNG FLASHING BEACON INSTALLATION. Each flashing beacon will be paid for separately.

ELECTRIC CABLE
Effective: May 22, 2002
Revised: July 1, 2015
873.01TS

Delete "or stranded, and No. 12 or" from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

CONCRETE FOUNDATIONS
Effective: May 22, 2002
Revised: November 01, 2018
878.01TS

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. at the threaded end.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

Add the following to the first paragraph of Article 878.05 of the Standard Specifications:

The concrete apron in front of the cabinet and UPS shall be included in this pay item.

PEDESTRIAN PUSH-BUTTON
Effective: May 22, 2002
Revised: July 1, 2015
888.01TS

Description.
Revise Article 888.01 of the Standard Specifications to read:

This work shall consist of furnishing and installing a latching (single call) or non-latching (dual call) pedestrian push-button and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9" x 15" sign with arrow(s) for a count-down pedestrian signal. The pedestrian station sign size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9" x 12" sign with arrow(s).

Installation.
Add the following to Article 888.03 of the Standard Specifications:

A mounting bracket and/or extension shall be used to assure proper orientation when two pedestrian push buttons are required for one post. The price of the bracket and/or extension shall be included in the cost of the pedestrian push button. The contractor is not allowed to install a push-button assembly with the sign below the push-button in order to meet mounting requirements.

Materials.
Revise Article 1074.02(a) of the Standard Specifications to read:

The pedestrian push-button housing shall be constructed of aluminum alloy according to ASTM B 308 6061-T6 and powder coated yellow, unless otherwise noted on the plans. The housing shall be furnished with suitable mounting hardware.

Revise Article 1074.02(e) of the Standard Specifications to read:

Stations shall be designed to be mounted to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch (75mm) round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9" x 15" sign with arrow(s) for a count-down pedestrian signal. The pedestrian station size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9" x 12" sign with arrow(s).

Add the following to Article 1074.02 of the Standard Specifications:

(f) Location. Pedestrian push-buttons and stations shall be mounted to a post, mast arm pole or wood pole as shown on the plans and shall be fully ADA accessible from a paved or concrete surface. See the District's Detail sheets for orientation and mounting details.

Basis of Payment.

Revise Article 888.04 of the Standard Specifications to read:

This work will be paid for at the contract unit price per each for PEDESTRIAN PUSH-BUTTON or PEDESTRIAN PUSH-BUTTON, NON-LATCHING.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
Effective: May 22, 2002
Revised: July 1, 2015
895.02TS

Add the following to Article 895.05 of the Standard Specifications:

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor's expense.

All equipment to be returned to the State shall be delivered by the Contractor to the State's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the State's Electrical Maintenance Contractor to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within 30 days of removing it from the traffic signal installation. The Contractor shall provide one hard copy and one electronic file of a list of equipment that is to remain the property of the State, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the Contract plan or special provision showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. If equipment is not returned according to these requirements, it will be rejected by the State's Electrical Maintenance Contractor. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until the acceptance of a receipt drawn by the State's Electrical Maintenance Contractor indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick up or delivery of all equipment to be returned to agencies other than the State. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of these Specifications at no cost to the contract.

ADDENDUM # 01

FLASHER RELOCATION

ADDENDUM #01

Google Maps