ADDENDUM #1 FOR 20-00000-01-GM

This Addendum supplements and amends the original Drawings and Specifications and shall be taken into account in preparing proposals, and shall become a part of the Contract Documents. In case of conflict between the Drawings, Specifications and this Addendum, this Addendum will govern. Careful note of this Addendum shall be taken and all trades affected shall be fully advised for performance of the work.

This Addendum changes the starting location for Location #1 – Manito Rd.

- Replace pages 2-4 of BLR 12200 with the attached revised pages 2-4 of BLR 12200. (Changes will be in Red)
- Replace table of contents with the attached revised table of contents. (Changes will be in Red)
- Replace page 2 of the Special Provisions (Changes will be in Red)
- Replace pages 60-109 with the attached pages 60-107 (Changes will be in Red)

Please contact our office if you have any questions.

By signing below, I acknowledge receipt of Addendum #1 for 20-00000-01-GM

X ______________________, ______________________ Representative

(Name) (Company)
NOTICE TO BIDDERS

Sealed proposals for the improvement described below will be received at the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568 until 8:00 AM on April 20, 2020.

Sealed proposals will be opened and read publicly at the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568 at 8:00 AM on April 20, 2020.

DESCRIPTION OF WORK

Name: Section 20-00000-01-GM
Length: 66330.00 feet (12.563 miles)
Location: Various Locations in Tazewell County - See Location Map
Proposed Improvement: Hot-Mix Asphalt Milling and Resurfacing various locations in Tazewell County.

1. Plans and proposal forms will be available in the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568.

2. Prequalification
   If checked, the 2 low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57), in duplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and one original with the IDOT District Office.

3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.

4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
   a. BLR 12200: Local Public Agency Formal Contract Proposal
   b. BLR 12200a Schedule of Prices
   c. BLR 12230: Proposal Bid Bond (if applicable)
   d. BLR 12325: Apprenticeship or Training Program Certification (do not use for federally funded projects)
   e. BLR 12326: Affidavit of Illinois Business Office

5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.

6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.

7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.

8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.
1. Proposal of ________________________________
   for the improvement of the above section by the construction of Hot-Mix Asphalt Milling and Resurfacing various locations
   in Tazewell County ________________________________
   a total distance of 66330.00 feet, of which a distance of 66001.00 feet, (12.500 miles) are to be improved.

2. The plans for the proposed work are those prepared by the Tazewell County Highway Department
   and approved by the Department of Transportation on ________________________________

3. The specifications referred to herein are those prepared by the Department of Transportation and designated as “Standard Specifications for Road and Bridge Construction” and the “Supplemental Specifications and Recurring Special Provisions” thereto, adopted and in effect on the date of invitation for bids.

4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the “Check Sheet for Recurring Special Provisions” contained in this proposal.

5. The undersigned agrees to complete the work within 45 working days or by ________________________________
   unless additional time is granted in accordance with the specifications.

6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to:

   County ________________________________ Treasurer of Tazewell County

   The amount of the check is ________________________________ (__________________).

7. In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties, which would be required for each individual proposal. If the proposal guaranty check is placed in another proposal, it will be found in the proposal for: Section Number ________________________________.

8. The successful bidder at the time of execution of the contract will be required to deposit a contract bond for the full amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond or check shall be forfeited to the Awarding Authority.

9. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.

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

11. The undersigned submits herewith the schedule of prices on BLR 12200a covering the work to be performed under this contract.

12. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12200a, the work shall be in accordance with the requirements of each individual proposal for the multiple bid specified in the Schedule for Multiple Bids below.
## County

- **Local Public Agency**: TAZEWELL COUNTY
- **Section**: 20-00000-01-GM
- **Route**: VARIOUS

### Schedule of Prices

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

### Schedule for Multiple Bids

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<th>Combination Letter</th>
<th>Sections Included in Combinations</th>
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### Schedule for Single Bid

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

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## Table of Contents

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<td>SCHEDULE OF ROADS</td>
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<td>61</td>
<td>LOCATION MAP</td>
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<td>TABULATION OF QUANTITIES</td>
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<td>ITEM 5: TOWNLINE RD. – CROSS SECTIONS</td>
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</table>
INCIDENTAL HOT-MIX ASPHALT SURFACING: Any preparation required prior to construction of INCIDENTAL HOT-MIX ASPHALT SURFACING will not be measured separately but shall be included in the contract unit price per ton for INCIDENTAL HOT-MIX ASPHALT SURFACING. To prevent damage to newly constructed bituminous surfaces, it is understood that an interval of up to one week shall lapse as determined by the Engineer after construction of the mainline pavement before shoulder operations begin, depending on weather and curing conditions.

AGGREGATE SHOULDERS, TYPE B (SPECIAL): This work shall be constructed in accordance with Section 481 of the Standard Specifications with the following exceptions and additions:

This work will include entrance radii and transitions to existing aggregate and earth entrances. Material placed at entrances shall be of the same type and gradation as the existing entrance except in the case of earth field entrances where a transition of aggregate shall be placed to provide safe entrance to the bituminous roadway.

Areas that are not accessible by mechanical spreader during normal shoulder operations will be constructed by handwork as necessary by any method that provides a usable surface and has a uniform and neat appearance and shall be compacted by a means approved by the Engineer.

No extra compensation will be allowed for handwork required to complete shoulders along roadway, entrances, or at driveway transitions.

To prevent damage to newly constructed bituminous surfaces, it is understood that an interval of up to two weeks shall lapse as determined by the Engineer after construction of the mainline pavement before shoulder operations begin, depending on weather and curing conditions.

WORK ZONE PAVEMENT MARKING: Section 703 of the Standard Specifications shall apply with the following changes and stipulations:

Permanent pavement markings will be applied by others, therefore the Contractor will not be responsible for replacing short - term markings with temporary or permanent pavement markings. The Contractor will be responsible for maintaining short term markings for 30 days or until permanent pavement markings are applied whichever is first.

Article 703.02 Materials. Material shall be pavement marking tape as specified.

ITEM 1: MANITO RD. WIDTH RESTRICTION: Structure 090-3203 (Sta. 15+87 to 16+93) is restricted to one lane of traffic with a maximum width of 12'-0". No overdimension or overweight permits will be issued for this structure. Contractor should plan the construction accordingly to observe the above restriction.

WEIGHT LIMITS: Legal weight limits shall be observed on Tazewell County highways and the structures they contain at all times. The Contractor shall apply for overweight and over dimension permits in advance to avoid delays in work.

HOT-MIX ASPHALT MIXTURES: The N Design and friction aggregate mixture for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE are to be as specified on the typical cross section.
# SCHEDULE OF ROADS

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<td>4</td>
<td>Townline Rd. (CH 7) I-155 to Bolliger Bridge</td>
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<td>5</td>
<td>Townline Rd. (CH 7) - Mackinaw River Bridge easterly to Top of Hill</td>
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Page 60
1. Manito Rd. (CH 16) 0.617 miles
2. Manito Rd. (CH 16) 0.917 miles
3. Fast Ave. (CH 23) 1.102 miles
4. Townline Rd. (CH 7) 2.213 miles
5. Townline Rd. (CH 7) 0.846 miles
6. Springfield Rd. (CH 1) 2.020 miles
7. Dee-Mack Rd. (CH 6) 1.493 miles
8. Allentown Rd. (CH 5) 2.791 miles
9. County Service Roads 0.564 miles
12.563 miles
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<td>1 L SUM</td>
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<td>MOBILIZATION:</td>
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<td>1 L SUM</td>
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</table>
### Item 1:
Manito Rd. (CH 16) - Powerton Bridge to East of Wagonseller Rd.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sec. Q-15D Sta. 37+90 to Sta. 45+00; Sec. 10-1A Sta. 0+00 to Sta. 25+46</td>
<td></td>
</tr>
<tr>
<td>Road Length:</td>
<td>3,256 Feet</td>
</tr>
<tr>
<td>Road Width:</td>
<td>24 Feet</td>
</tr>
<tr>
<td>Hot-Mix Asphalt Shoulder Width:</td>
<td>4 Feet</td>
</tr>
<tr>
<td>P HMA Surface Course thickness:</td>
<td>1.75 Inches</td>
</tr>
<tr>
<td>Bituminous Area:</td>
<td></td>
</tr>
<tr>
<td>Roadway &amp; Shoulders:</td>
<td>11,577 SY</td>
</tr>
<tr>
<td>Turnlane @ Powerton:</td>
<td>1,139 SY</td>
</tr>
<tr>
<td>Sideroads, Drives, Etc.:</td>
<td>425 SY</td>
</tr>
<tr>
<td>Total Bituminous Area:</td>
<td>13,141 SY</td>
</tr>
<tr>
<td>Longitudinal Joint Sealant:</td>
<td>3,256 FOOT</td>
</tr>
<tr>
<td>To be placed on milled surface</td>
<td></td>
</tr>
<tr>
<td>Polymerized Bituminous Materials (Tack Coat):</td>
<td>5,913 POUND</td>
</tr>
<tr>
<td>0.05 lb/SF on Milled Surface</td>
<td></td>
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<tr>
<td>Hot-Mix Asphalt Surface Removal - Butt Joint:</td>
<td>150 SY</td>
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<tr>
<td>Ends, &amp; Bridge</td>
<td></td>
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<tr>
<td>Temporary Ramps:</td>
<td>30 SY</td>
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<tr>
<td>Polymerized Hot-Mix Asphalt Surface Course &quot;C&quot; N50:</td>
<td>1,231 TON</td>
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<tr>
<td>Roadway, Shoulders, and Turnlane</td>
<td></td>
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<tr>
<td>Material Transfer Device:</td>
<td>1,231 TON</td>
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<tr>
<td>HMA Surface Course</td>
<td></td>
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<tr>
<td>Incidental Hot-Mix Asphalt Surfacing:</td>
<td>48 TON</td>
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<td>Sideroads, Entrances, etc.</td>
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<td>Hot-Mix Asphalt Surface Removal, 1 1/2&quot;:</td>
<td>998 SY</td>
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<td>Over Bridge 090-0113: Sta. 37+90 to 41+05:</td>
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<tr>
<td>Hot-Mix Asphalt Surface Removal, 1 3/4&quot;:</td>
<td>11,993 SY</td>
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<tr>
<td>Short-Term Pavement Marking:</td>
<td></td>
</tr>
<tr>
<td>'Yellow 3 Lifts 4' / 40’ = 972 foot</td>
<td></td>
</tr>
<tr>
<td>White 3 Lifts 4’ / 100’ x 2 = 792 foot</td>
<td></td>
</tr>
<tr>
<td>1764 foot</td>
<td>1,764 FOOT</td>
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<tr>
<td>Short Term Pavement Marking Removal:</td>
<td>196 SQ FT</td>
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<tr>
<td>Raised Reflective Pavement Markers Removal:</td>
<td>40 EACH</td>
</tr>
<tr>
<td>Raised Reflective Pavement Marker:</td>
<td>40 EACH</td>
</tr>
<tr>
<td>1 marker / 80'</td>
<td></td>
</tr>
</tbody>
</table>
**TYPICAL CROSS SECTION**

**C.H. 16 - MANITO ROAD**

Sec. Q-15D - Sta. 37+90 to 45+00

<table>
<thead>
<tr>
<th>Location:</th>
<th>CH 16 - Manito Rd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture Uses:</td>
<td>Surface Course</td>
</tr>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP % (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Void:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition: (Gradation Mixture)</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM  
Item: 1 (Sheet 1 of 2)  
Route: CH 16 - MANITO RD.  
Location: Sec. Q-15D - Sta. 37+90 to 45+00

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TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. 10-1A - Sta. 0+00 to 25+46

EXISTING 10" AGGREGATE BASE
EXISTING 12" HOT-MIX ASPHALT SURFACE - MILL TOP 1.75" OF ROADWAY & SHOULDERS
NOTE: MILL AND RESURFACE EXISTING 12" HOT-MIX ASPHALT TURN LANE AT POWERTON POWER PLANT

Location: CH 16 - Manito Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP % (Max): 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
(Gradation Mixture)
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 1 (Sheet 2 of 2)
Route: CH 16 - MANITO RD.
Location: Sec. 10-1A - Sta. 0+00 to 25+46
Item 2:
Manito Rd. (CH 16) - West of Wagonsteller Rd. (Sta. 41+24) to Garman Rd. (Sta. 89+64)

Road Length: 4,840 Feet
Omission @ Structure #090-3000: 168 Feet
Net Improvement Length: 4,672 Feet
Road Width: 24 Feet
Hot-Mix Asphalt Shoulder Width: 4 Feet

P HMA Surface Course thickness: 1.75 Inches

Bituminous Area:
Roadway & Shoulders: 16,612 SY
Turnlane: 680 SY
Sideroads, Drives, Etc.: 375 SY

 total 17,667 SY

LONGITUDINAL JOINT SEALANT: 4,672 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT): 7,950 POUND
0.05 lb/SF on Milled Surface

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 175 SY
Ends, Bridge, & Sideroads

TEMPORARY RAMPS: 30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50: 1,695 TON
Roadway, Shoulders, and Turnlane

MATERIAL TRANSFER DEVICE: 1,695 TON
HMA Surface Course

INCIDENTAL HOT-MIX ASPHALT SURFACING: 42 TON
Sideroads, Entrances, etc.: 17,492 SY

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' = 1404 foot
White 3 Lifts 4' / 100' x 2 = 1128 foot
2,532 foot

SHORT TERM PAVEMENT MARKING REMOVAL: 281 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 59 EACH

RAISED REFLECTIVE PAVEMENT MARKER: 59 EACH
1 marker / 80'
TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. 10-1A - Sta. 41+24 to 89+64

<table>
<thead>
<tr>
<th>Location: CH 16 - Manito Rd.</th>
<th>Mixture Uses: Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP % (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

NOTE: MILL AND RESURFACE EXISTING 17' HOT-MIX ASPHALT TURN LANE AT POWERTON LAKE
Item 3:
Fast Ave. (CH 23) - Village of Mackinaw easterly to Mackinaw Road District

Road Length: 5,820 Feet
Road Width: 22 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
- Roadway: 14,227 SY
- Sideroads, Drives, Etc.: 1805 SY
  total 16,032 SY

LONGITUDINAL JOINT SEALANT: 5,820 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 7,214 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 175 SY
Ends, Sideroads, & Entrances

TEMPORARY RAMPS: 20 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway 1,195 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 1,195 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING: 202 TON
Sideroads, Entrances, etc.

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4":
15,857 SY

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40': 1,752 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL:
195 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL:
71 EACH

RAISED REFLECTIVE PAVEMENT MARKER:
72 EACH
1 marker / 80'
**TYPICAL CROSS SECTION**

**C.H. 23 - FAST AVE.**

**Location:** CH 23 - Fast Ave.

**Mixture Uses:** Surface Course

**PG:** SBS PG70-22

**RAP %: (Max)** 10%

**Design Air Voids:** 4.0 @ N=50

**Mixture Composition: (Gradation Mixture)** IL 9.5 only

**Friction Aggregate:** Mixture C

**Section:** 20-00000-01-GM

**Item:** 3

**Route:** CH 23 - FAST AVE.

**Location:** Village of Mackinaw easterly to Mackinaw Road District

---

**EXISTING 8.5" AGGREGATE BASE**

**EXISTING 3' AGGREGATE SHOULDERS**

**EXISTING 6.25" HOT-MIX ASPHALT SURFACE - MILL TOP 1.25" OF ROADWAY**

**EXISTING CROSS SLOPE VARIES**

**EXISTING CROSS SLOPE - 1/6' /ft.**

**PROPOSED 1.5" POLY HMA SC "C" N50**

**PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)**

---

**1/2" / FT (TYP)**

**11'**

**3'**

---

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### Item 4:
Townline Rd. (CH 7) I-155 to Bolliger Bridge - Page 1 of 2

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Road Length: I-155 overpass to Miller Rd.</td>
<td>1325 Feet</td>
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<tr>
<td>Bituminous Area: I-155 Overpass to Miller Rd.</td>
<td>6765 SY</td>
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<tr>
<td>Road Length: Miller Rd. to Bolliger Bridge</td>
<td>10,360 Feet</td>
</tr>
<tr>
<td>Road Width:</td>
<td>22 Feet</td>
</tr>
<tr>
<td>Aggregate Shoulder Width:</td>
<td>4 Feet</td>
</tr>
<tr>
<td>P HMA Surface Course thickness:</td>
<td>1.5 Inches</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bituminous Area: Roadway</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-155 overpass to Miller Rd.</td>
<td>6,765 SY</td>
</tr>
<tr>
<td>Miller Rd. to Bolliger Bridge</td>
<td>25,324 SY</td>
</tr>
</tbody>
</table>

6' Hot-Mix Asphalt Shoulders
- Sta. 46+75 to Sta. 52+25: 733 SY
- Sta. 63+70 to Sta. 66+85: 420 SY
- Sideroads, Drives, Etc.: 1675 SY

- Sta. 52+25 to Sta. 52+25: 60 SY
- Sta. 66+85 to Sta. 66+85: 140 SY
- Sideroads, Drives, Etc.: 1675 SY

Total: 34,917 SY

**LONGITUDINAL JOINT SEALANT:**
To be placed on milled surface

**POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):**
0.05 lb/SF on Milled Surface

**HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:**
Ends & Sideroads

**TEMPORARY RAMPS:**

**POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:**
Roadway & Shoulders

**MATERIAL TRANSFER DEVICE:**
HMA Surface Course

**INCIDENTAL HOT-MIX ASPHALT SURFACING:**
Sideroads, Entrances, etc.

**HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4":**
Over Bridge 090-3009: Sta. 60+44 to 61+02:

**HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2":**

**AGGREGATE SHOULDERS, TYPE B (SPECIAL):**
- Roadway: 1101 TONS
- Radius', Drives, etc.: 143 TONS

Total 1245 TONS 1,245 TON
Item 4:
Townline Rd. (CH 7) I-155 to Bolliger Bridge - Page 2 of 2

SHORT-TERM PAVEMENT MARKING:
- Yellow 3 Lifts 4' / 40' = 3240 foot
- White 3 Lifts 4' / 100' x 2 = 576 foot
  \[\text{Total} = 3816 \text{ foot}\]

SHORT TERM PAVEMENT MARKING REMOVAL: 424 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 136 EACH

RAISED REFLECTIVE PAVEMENT MARKER: 136 EACH
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE ROAD
Sta. 0+00 to 2+00

EXISTING 12" LIME MODIFIED SOIL

EXISTING 11" HOT-MIX ASPHALT-
MILL TOP 1.25" OF ROADWAY AND SHOULDERS

EXISTING 2.5' AGGREGATE SHOULDER

PROPOSED 1.5" POLY HMA SC "C" NS0

PROPOSED LONGITUDINAL JOINT SEALANT
(ON MILLED SURFACE)

Location:  CH 7 - Townline Rd.
Mixture Uses:  Surface Course
PG:  SBS PG70-22
Design Air Voids:  4.0 @ N=50
Mixture Composition:  IL 9.5 only
Friction Aggregate:  Mixture C
RAP  10%

Section:  20-00000-01-GM
Item:  4 (Sheet 1 of 4)
Route:  CH 7 - TOWNLINE RD.
Location: Sta. 0+00 (I-155) to 2+00

Page 72
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE ROAD
Sta. 2+00 to 8+72

Location: CH 7 - Townline Rd.
Mix proportions:

- Paste: EMAC 60/70
- Gradation: Gradation Mixture
- Friction Aggregate: Mixture C
- RAP: 10%

Location: CH 7 - Townline Rd.
Mixture Uses:
- Surface Course

PG: SBS PG70-22
Design Air Voids: 4.0 @ N=50
Mixture Composition:
- IL 9.5 only

Section: 20-00000-01-GM
Item: 4 (Sheet 2 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 2+00 to 8+72
**TYPICAL CROSS SECTION**

C.H. 7 - TOWNLINE ROAD

Sta. 8+72 to 13+25

---

**Location:** CH 7 - Townline Rd.

<table>
<thead>
<tr>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP % (Max)</td>
<td>10%</td>
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<tr>
<td>Design Air Void:</td>
<td>4.0 @ N=50</td>
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<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
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<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
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</tbody>
</table>

Section: 20-00000-01-GM

Item: 4 (Sheet 3 of 4)

Route: CH 7 - TOWNLINE RD.

Location: Sta. 8+72 to 13+25

---
EXISTING 9" AGGREGATE BASE

EXISTING 4' AGGREGATE SHOULDERS

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - 1/48/ft

EXISTING 7.75" HOT-MIX ASPHALT SURFACE - MILL TOP 1.25" OF ROADWAY
(MILL TOP 1.5" OVER BRIDGE STA. 60+44 TO 61+02)

EXISTING 9" AGGREGATE BASE

PROPOSED 4' AGGREGATE SHOULDERS, TYPE B (SPL)

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

NOTE: 6’ HOT-MIX ASPHALT SHOULDER LOCATION
Sta. 46+75 to 52+25; Sta. 63+70 to 66+85
MILL AND REPLACE WITH ROADWAY

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 4 (Sheet 4 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 13+25 to 116+85
Item 5:
Townline Rd. (CH 7) - Mackinaw River Bridge Sta. 0+08 easterly to Top of Hill Sta. 44+75

Road Length: 4,467 Feet
Road Width: 22 Feet
Hot Mix Asphalt Shoulder Width:
Sta. 0+08 to 28+55; 39+50 to 44+75: 3 Feet
Sta. 28+55 to 39+50: 4 Feet
Aggregate Shoulder Width:
Sta. 0+08 to 28+55; 42+15 to 44+75: 3 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway & Shoulders: 14,141 SY
Sideroads, Drives, Etc.: 600 SY
total 14,741 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface 4,467 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 6,633 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends, Bridge, Railroad, & Sideroads 125 SY

TEMPORARY RAMPS: 30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 1,188 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 1,188 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING:
Sideroads, Entrances, etc.: 67 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4"
14,616 SY

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 236 TONS
Radius', Drives, etc.: 51 TONS
Total 288 TONS

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' = 3348 foot 3,348 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 372 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 56 EACH

RAISED REFLECTIVE PAVEMENT MARKER: 56 EACH
1 marker / 80'

TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE RD.
Sta. 0+08 to 28+55

EXISTING 9" AGGREGATE BASE
EXISTING 3' AGGREGATE SHOULDER
EXISTING CROSS SLOPE VARIETY
EXISTING CROSS SLOPE: 1/6 - 1/15
EXISTING 3' HOT-MIX ASPHALT SHOULDER
EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS
EXISTING 9" AGGREGATE BASE

PROPOSED 3' AGGREGATE SHOULDER, TYPE B (SPL)
PROPOSED 1.5" POLY HMA SC "C" N50
PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 1 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 0+08 (Mackinaw River Bridge) to 28+55
EXISTING 9" AGGREGATE BASE

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - \( \frac{3}{16} \) / ft.

1/2" / FT (TYP)

EXISTING 4' HOT-MIX ASPHALT SHOULDER

EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 4' HOT-MIX ASPHALT SHOULDER

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE RD.
Sta. 28+55 to 39+50

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 2 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 28+55 to 39+50
EXISTING 9" AGGREGATE BASE

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - 1.25'/ft.

3' / FT (TYP)

11'

11'

3'

EXISTING 3' HOT-MIX ASPHALT SHOULDER

EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 9" AGGREGATE BASE

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

Location: CH 7 - Townline Rd.

Mixture Uses: Surface Course

PG: SBS PG70-22

RAP %: (Max) 10%

Design Air Voids: 4.0 @ N=50

Mixture Composition: IL 9.5 only

Friction Aggregate: Mixture C

Section: 20-00000-01-GM

Item: 5 (Sheet 3 of 4)

Route: CH 7 - TOWNLINE RD.

Location: Sta. 39+50 to 42+15

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EXISTING 9" AGGREGATE BASE

EXISTING 3' AGGREGATE SHOULDERS

EXISTING 3' HOT-MIX ASPHALT SHOULDER

EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 9" AGGREGATE BASE

PROPOSED 3' HOT-MIX ASPHALT SHOULDER

PROPOSED 3' AGGREGATE SHOULDERS, TYPE B (SPL)

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

**TYPICAL CROSS SECTION**

**C.H. 7 - TOWNLINE RD.**

Sta. 42+15 to 44+75

<table>
<thead>
<tr>
<th>Location:</th>
<th>CH 7 - Townline Rd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture Uses:</td>
<td>Surface Course</td>
</tr>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
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<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 5 (Sheet 4 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 42+15 to 44+75
Item 6:
Springfield Rd. (CH 1) - IL 122 to Toboggan Rd. (CH 14)
Road Length: 10,665 Feet
Road Width: 22 Feet
Bituminous Shoulder Width: 6 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area: Roadway & Shoulders: 40,290 SY
Sideroads, Drives, Etc.: 875 SY

Total 41,165 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface 10,665 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 18,524 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends, Bridge, & Sideroads 150 SY

TEMPORARY RAMPS: 15 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 3,384 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 3,384 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING:
Sideroads, Entrances, etc.: 98 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2":
41,015 SY

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' = 3204 foot
White 3 Lifts 4' / 100' x 2 = 2568 foot
5772 foot 5,772 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 641 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 134 EACH

RAISED REFLECTIVE PAVEMENT MARKER:
1 marker / 80'
134 EACH
TYPICAL CROSS SECTION
C.H. 1 - SPRINGFIELD ROAD

Location: CH 1 - Springfield Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP % (Max): 10%
Design Air Void: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Gradation Mixture
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 6
Route: CH 1 - SPRINGFIELD RD.
Location: IL 122 to Toboggan Rd. (CH 14)
Item 7:
Dee-Mack Rd. (CH 6) - US 24 Bypass South to US 24
Road Length: 7,882 Feet
Road Width: 22 Feet
Hot-Mix Asphalt Shoulder Length: Sta. 0+00 to 3+12 312 Feet
Hot-Mix Asphalt Shoulder Width: 4 Feet
Aggregate Shoulder Width: 3 Feet
P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: 19,977 SY
Sidewalks, Drives, Etc.: 575 SY
Total: 20,552 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface 7,570 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 9,248 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends, Railroad, Sideroads 350 SY

TEMPORARY RAMPS:
30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 1,678 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 1,678 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING:
Sidewalks, Entrance, etc.: 64 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 20,202 SY

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 599 TONS
Radius', Drives, etc.: 49 TONS
Total: 648 TONS

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40': 2,280 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL:
253 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL:
95 EACH

RAISED REFLECTIVE PAVEMENT MARKER:
1 marker / 80' 95 EACH

RAILROAD PROTECTIVE LIABILITY INSURANCE:
1 L SUM
EXISTING 9" AGGREGATE BASE

EXISTING 3' AGGREGATE SHOULDERS

EXISTING 4' HOT-MIX ASPHALT SHOULDER

EXISTING HOT-MIX ASPHALT SURFACE-MILL TOP 1.5" OF ROADWAY & SHOULDERS

EXISTING 9" AGGREGATE BASE

PROPOSED 3' AGGREGATE SHOULDERS, TYPE B (SPL)

PROPOSED 4' HOT-MIX ASPHALT SHOULDER

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

Location: CH 6 - Dee-Mack Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: (Gradation Mixture) IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 7 (Sheet 1 of 2)
Route: CH 6 - DEE-MACK RD.
Location: Sta. 0+00 (US 24 Bypass) to 3+12
TYPICAL CROSS SECTION
C.H. 6 - DEE-MACK RD.
Sta. 3+12 to 78+82

Location: CH 6 - Dee-Mack Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP % (Max): 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 7 (Sheet 2 of 2)
Route: CH 6 - DEE-MACK RD.
Location: Sta. 3+12 to 78+82
Item 8:
Allentown Rd. (CH 5) - Springfield Rd. (CH 1) to I-155 - Page 1 of 2

Road Length: 14,735 Feet
Omission @ Structure #090-3238: 161 Feet
Net Improvement Length: 14,574 Feet
Road Width: 22 Feet
Aggregate Shoulder Width: 5 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area: 
Roadway: 35,625 SY
5' Gutter (Sta. 63+90 - 68+25): 483 SY
3' HMA Shoulders (Sta. 95+40 - 104+35 LT): 299 SY
3' HMA Shoulders (Sta. 101+10 - 106+70 RT): 187 SY
6' HMA Shoulders (Sta. 138+75 - 147+35): 1147 SY
Sideroads, Drives, Etc.: 1725 SY
total 39,466 SY

LONGITUDINAL JOINT SEALANT: 14,574 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT): 17,760 POUND
0.05 lb/SF on Milled Surface

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 175 SY
Ends, Bridge, & Sideroads

TEMPORARY RAMPS: 30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50: 3,170 TON
Roadway & Shoulders

MATERIAL TRANSFER DEVICE: 3,170 TON
HMA Surface Course

INCIDENTAL HOT-MIX ASPHALT SURFACING: 193 TON
Sideroads, Entrances, etc.

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4": 39,291 SY

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 1,627 TONS
Radius', Drives, etc.: 147 TONS
Total 1,774 TONS

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' = 4380 foot
White 3 Lifts 4' / 100' x 2 = 336 foot
4716 foot 4,716 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 524 SQ FT
Item 8:
Allentown Rd. (CH 5) - Springfield Rd. (CH 1) to I-155 - Page 2 of 2

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 183 EACH

RAISED REFLECTIVE PAVEMENT MARKER: 183 EACH
   1 marker / 80'
TYPICAL CROSS SECTION
C.H. 5 - ALLENTOWN RD.

Location: CH 5 - Allentown Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 8 (Sheet 1 of 4)
Route: CH 5 - ALLENTOWN RD.
Location: Springfield Rd. (CH 1) to I-155
### Location: CH 5 - Allentown Rd.

<table>
<thead>
<tr>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

**Section:** 20-00000-01-GM  
**Item:** 8 (Sheet 2 of 4)  
**Route:** CH 5 - ALLENTOWN RD.  
**Location:** Sta. 63+90 to 68+25
# TYPICAL CROSS SECTION

**C.H. 5 - ALLENTOWN RD.**

Sta. 95+40 to 104+35 LT &
Sta. 101+10 to 106+70 RT

### Location:
- **Location:** CH 5 - Allentown Rd.
- **Mixture Uses:** Surface Course
- **PG:** SBS PG70-22
- **RAP % (Max):** 10%
- **Design Air Voids:** 4.0 @ N=50
- **Mixture Composition:** IL 9.5 only
- **Friction Aggregate:** Mixture C

### Section:
- **Section:** 20-00000-01-GM
- **Item:** 8 (Sheet 3 of 4)
- **Route:** CH 5 - ALLENTOWN RD.
- **Location:** Sta. 95+40 to 104+35 LT & Sta. 101+10 to 106+70 RT
**TYPICAL CROSS SECTION**  
C.H. 5 - ALLENTOWN RD.  
Sta. 138+75 to 147+35

**Location:** CH 5 - Allentown Rd.  
**Mixture Uses:** Surface Course  
**PG:** SBS PG70-22  
**RAP % (Max):** 10%  
**Design Air Voids:** 4.0 % @ N=50  
**Mixture Composition:** IL 9.5 only  
**Friction Aggregate:** Mixture C  

Section: 20-00000-01-GM  
Item: 8 (Sheet 4 of 4)  
Route: CH 5 - ALLENTOWN RD.  
Location: Sta. 138+75 to 147+35
Item 9:
Tremont County Complex Service Roads

Road Length - IL 9 to EMA: 2,140 Feet
Road Length - Service Rd. to Animal Control: 840 Feet
Net Road Length: 2,980 Feet
Road Width: 22.5 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: 7,450 SY
Intersections Radii Area: 500 SY
total: 7,950 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface: 2,980 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface: 3,578 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends and Sideroads: 70 SY

TEMPORARY RAMP:
20 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway: 668 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course: 668 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 7,880 SY

SHORT TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40': 900 Foot

SHORT TERM PAVEMENT MARKING REMOVAL: 75 SQ FT
TYPICAL CROSS SECTION
TREMONT COUNTY COMPLEX
SERVICE ROADS

Location: Tremont County Complex Service Roads

<table>
<thead>
<tr>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition: (Gradation Mixture)</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 9
Route: SERVICE ROADS
Location: IL 9 to EMA & Service Rd. to Animal Control
2. The cost of preparing driveways will be considered included in the type of surface being constructed and will not be measured separately for payment. (See Spec. Prov.)

3. Place AGGREGATE SHOULDERS, TYPE B (SPECIAL) behind drives to blend into existing aggregate drives.
CASE 1: WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TABLE A
TAPER RATES

<table>
<thead>
<tr>
<th>SPECIAL NOTE NUMBER</th>
<th>ELEMENT</th>
<th>MAINLINE INTERSTATES &amp; 4-LANE EXPRESSWAYS</th>
<th>ALL OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BUTT JOINT</td>
<td>1:480</td>
<td>1:340</td>
</tr>
<tr>
<td>2</td>
<td>TEMPORARY RAMP</td>
<td>1:80</td>
<td>1:40</td>
</tr>
</tbody>
</table>

GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.

2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 406.04 and the Special Provisions for Butt Joints.

3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.

4. The length of butt joint is based on the taper rate times change in cold milling depth within the butt joint pay limits, unless otherwise indicated.

5. Temporary ramps are paid for separately and not included in the cost of the butt joints.

CASE 2: NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

Pay limits for BUTT JOINT
Length = see Table A, Special Note 1

Removal limits

Prop. overlay thickness: see plans

Prop. hot mix asphalt surf., removal (cold milling): see plans

All dimensions are in inches (millimeters) unless otherwise noted.
CASE 3: HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER

Saw cut to the depth of the proposed surface course
Exist. overlay
Exist. overlay
Saw cut to the depth of the proposed surface course
Temporary ramp taper
Milled surface

DETAIL TEMPORARY RAMP
CASE 4: SINGLE LIFT OVERLAY WITH EQUIVALENT DEPTH
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER

Pay limits for BUTT JOINT
Length: 10 feet (3.0 m)

Saw cut to the depth of the proposed surface course.

Exist. overlay

Removal limits

Exist. pav't. or base cse.

Prop. Hot Mix Asphalt surf. removal (cold milling) per plans.
1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.

2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

General notes:
- Coldmilling shall consist of two processes:
  - Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.

- Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

<table>
<thead>
<tr>
<th>Tooth mark</th>
<th>Area cut by tooth</th>
<th>Area planed by moldboard</th>
<th>Existing bituminous surfacing left after cold milling</th>
</tr>
</thead>
<tbody>
<tr>
<td>20° centerline parallel to Direction</td>
<td>14 (350) R min.</td>
<td>5/32 (0.5)</td>
<td>3/8 (10)</td>
</tr>
</tbody>
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General notes:
- Coldmilling shall consist of two processes:
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<td>5/32 (0.5)</td>
<td>3/8 (10)</td>
</tr>
</tbody>
</table>

All dimensions are in inches (millimeters) unless otherwise noted.
TYPICAL APPLICATIONS
- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

SYMBOLS
- Work area
- Sign
- Cone, drum or barricade

GENERAL NOTES
This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600 mm) from the edge of pavement.

FORMULAS
<table>
<thead>
<tr>
<th>English</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEED LIMIT</td>
<td></td>
</tr>
<tr>
<td>40 mph (64 km/h) or less</td>
<td>L = 1.5W</td>
</tr>
<tr>
<td>45 mph (72 km/h) or greater</td>
<td>L = 1.5W</td>
</tr>
</tbody>
</table>

L = Width of offset in feet (meters) unless otherwise shown.
S = Normal posted speed in mph (km/h)

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

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05

Page 99
TYPICAL APPLICATIONS

Shoulder work

Utility operations

SYMBOLS

- Work area
- Sign

<1 Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed 1/2 the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

When the work operation does not exceed 80 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.
Devices at 20' (6 m) centers in the taper.

Cones at 25' (8 m) centers for the first 150' (45 m). Additional cones may be placed at 50' (15 m) centers. When drums or barricades are used, these intervals between devices may be doubled.

For contract construction projects

For maintenance and utility projects

TYPICAL APPLICATIONS
- Isolated patching
- Utility operations
- Storm sewer
- Culvert
- Cable placement

SYMBOLS
- Work area
- Sign
- Barricade or drum
- Cone, drum or barricade
- Flagger with traffic control sign

GENERAL NOTES
This Standard is used wherever at any time, any vehicles, equipment, workers, or their activities will encroach in the area between the center line and a line 24 (600) outside the edge of pavement for daylight operation.

When the distance between successive work areas exceeds 2000' (600 m), additional warning signs, flaggers, and taper shall be placed as shown.

All dimensions are in inches (millimeters) unless otherwise shown.
For any operation that encroaches in the area between
the centerline and a line 24 (600) outside the edge of the
pavement for a period of less than 35 minutes.

Vehicle with dual flashers or flashing
amber dome light operating.

For any operation that is more than 24 (600) outside the
edge of the pavement for a period of less than 60 minutes.

Vehicle with dual flashers or flashing
amber dome light operating.

For any operation that encroaches in the area between
the centerline and a line 24 (600) outside the edge of the
pavement for a period in excess of 15 minutes but less
than 60 minutes.

TYPICAL APPLICATIONS

- Marking patches
- Field survey
- String line
- Utility operations
- Cleaning up debris on pavement

SYMBOLS

- Work area
  - Sign on portable or permanent support
  - Flagger with traffic control sign

SIGN SPACING

<table>
<thead>
<tr>
<th>Posted Speed</th>
<th>Sign Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>400' (120 m)</td>
</tr>
<tr>
<td>50-45</td>
<td>350' (100 m)</td>
</tr>
<tr>
<td>&lt;45</td>
<td>200' (60 m)</td>
</tr>
</tbody>
</table>

1 = Refer to SIGN SPACING table for distances.

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

January 1,
2011

STANDARD 701301-04

LANE CLOSURE, 2L, 2W,
SHORT TIME OPERATIONS

Page 102
TYPICAL APPLICATIONS

- Bituminous resurfacing
- Milling operations
- Utility operations
- Shoulder operations

SYMBOLS

- Work area
- Sign on portable or permanent support
- Flagger with traffic control sign

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the pavement where the average speed of movement is greater than 15 mph (3 km/h) and less than 4 mph (6 km/h).

When the operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.
All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.
**POST MOUNTED SIGNS**

**When curbs or paved shoulder are present** this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

**When work operations exceed four days, this dimension shall be 5' (1.5 m).** If located behind other devices, the height shall be sufficient to be seen completely above the devices.

**ELEVATION OF EDGE OF PAVEMENT**

- 5' (1.5 m) min. embedment
- 7' (2.2 m) min. urban
- 24 (600 - 3 m)
- 12 (300)

**SIGN ON TEMPORARY SUPPORTS**

- 18x18 (450x450)

**FRONT SIDE**

- 24 (600)
- 5'

**REVERSE SIDE**

- 10 (300)
- 16 (400)

**STOP**

**SLOW**

**MAX WIDTH XX' - XX" XXX MILES AHEAD**

**WIDTH RESTRICTION SIGN**

**STOP**

**SLOW**

**FLAGGER TRAFFIC CONTROL SIGN**

**END CONSTRUCTION**

**ROAD CONSTRUCTION NEXT X MILES**

This sign is required for all projects 2 miles (3200 m) or more in length.

**END CONSTRUCTION**

**ROAD CONSTRUCTION NEXT X MILES** sign shall be placed 500' (150 m) in advance of project limits.

**END CONSTRUCTION** sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

**WORK LIMIT SIGNING**

**HIGH LEVEL WARNING DEVICE**

**SPEED ZONE SIGNS**

**HIGHWAY CONSTRUCTION LIMIT SIGNING**

**DEVICES**

**TRAFFIC CONTROL DEVICES**
ROAD CLOSED TO THRU TRAFFIC

Temporary Rumble Strips

TYPICAL INSTALLATION

Road Closed to All Traffic

Reflectorized striping may be omitted on the back side of the barricade. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on a Type III barricade in front of the barricade.

ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on the back side of the barricades.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

ARROW BOARDS

SECTION A-A

Type A - Roof Mounted
Type B - Roof or Trailer Mounted
Type C - Trailer Mounted

Traffic Control Devices

STANDARD 701901-08
Reduce to 40' (12.2 m) o.c. on curves with posted or advisory speeds of 45 mph (70 km/h) or less.

** See MULTI LANE DIVIDED detail for lane marker notes.

See MULTI LANE DIVIDED detail for lane marker notes.

MULTI-LANE UNDIVIDED

MULTI-LANE DIVIDED

TWO-LANE / TWO-WAY

LANE REDUCTION TRANSITION

TWO-WAY LEFT TURN

FREEWAY EXIT RAMP

SYMBOLS

WHITE GOLE MARKING

UNITED NATIONS SYSTEM OF UNITS

STANDARD 781001-04

TYPICAL APPLICATIONS

RAISED REFLECTIVE PAVEMENT MARKERS