RETURN WITH BID

Illinois Department of Transportation

Local Public Agency Formal Contract Proposal

PROPOSAL SUBMITTED BY		
Contractor's Name		
Street		P.O. Box
City	State	Zip Code

STATE OF ILLINOIS

COUNTY OF DuPage

City of Wheaton

(Name of City, Village, Town or Road District)

FOR THE IMPROVEMENT OF

STREET NAME OR ROUTE NO. Various Streets

SECTION NO. 16-00114-00-FP

TYPES OF FUNDS MFT and Local Funds

☒ SPECIFICATIONS (required) ☒ PLANS (required)

For Municipal Projects

Submitted/Approved/Passed

☒ Mayor ☐ President of Board of Trustees ☐ Municipal Official

Date 2-12-16

Department of Transportation

☑ Released for bid based on limited review

Municipal Engineer
On behalf of IDOT pursuant to Agreement
of Understanding dated May 14, 2009

Date 2/12/16

For County and Road District Projects

Submitted/Approved

Highway Commissioner

Date

Submitted/Approved

County Engineer/Superintendent of Highways

Date

PAUL G. REDMAN 062-044892 REGISTERED PROFESSIONAL ENGINEER STATE OF ILLINOIS

Paul G. Redman exp. 11/17

Note: All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed.

RETURN WITH BID

NOTICE TO BIDDERS

County DuPage
Local Public Agency City of Wheaton
Section Number 16-00114-00-FP
Route Various Streets

Sealed proposals for the improvement described below will be received at the office of The Procurement Officer,
303 W. Wesley Street, Wheaton, Illinois 60187 (Address) until 10:00 AM (Time) on March 1, 2016 (Date)

Sealed proposals will be opened and read publicly at the office of The Procurement Officer
303 W. Wesley Street, Wheaton, Illinois 60187 (Address) at 10:00 AM (Time) on March 1, 2016 (Date)

DESCRIPTION OF WORK

Name 2016 ROAD, SEWER AND WATER REHAB PROGRAM Length: 28164.00 feet (5.33 miles)
Location
Proposed Improvement Various streets within the City of Wheaton

1. Plans and proposal forms will be available in the office of On line at:
http://www.wheaton.il.us/departments/purchasing Contact: Joan Schouten at jschouten@wheaton.il.us (Address)
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.

RETURN WITH BID

PROPOSAL

County DuPage
Local Public Agency City of Wheaton
Section Number 16-00114-00-FP
Route Various Streets

1. Proposal of _____

for the improvement of the above section by the construction of Approx 74,340 SY pavement overlay including pavement milling, leveling binder, area reflective crack control treatment & surface course; 11,501 SY pav rehabilitation including curb & gutter, sidewalk, and drive approach remove & replace, leveling binder reflective crack control treatment & surface course; sanitary & storm sewer struc replacement; watermain & water services remove & replace and landscape restoration.

a total distance of 28164.00 feet, of which a distance of 28164.00 feet, (5.330 miles) are to be improved.

2. The plans for the proposed work are those prepared by The City of Wheaton Engineering 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 N/A 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:

City of Wheaton Treasurer of _____

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 16-00114-00-FP.

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.

RETURN WITH BID

Illinois Department of Transportation

SCHEDULE OF PRICES

County DuPage
Local Public Agency City of Wheaton
Section 16-00114-00-FP
Route Various

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	Dust Control Watering	UT	325.00		
2	One Year Guarantee (Non-MFT)	LS	1.00		
3	Supplemental Watering	UT	150.00		
4	Trench Backfill	CY	1,640.00		
5	Topsoil Furnish and Place	CY	1,798.50		
6	Exploratory Excavation	EA	8.00		
7	Tree Root Pruning	EA	15.00		
8	Seeding, Class 1	SY	3,806.00		
9	Seeding Behind Curb	LF	7,747.00		
10	Erosion Control Blanket	SY	11,943.00		
11	Sodding	SY	11,943.00		
12	Inlet Filters	EA	179.00		
13	Perimeter Erosion Barrier	LF	50.00		
14	PCC Base Course Widening, 7"	SY	1,708.00		
15	Hot-Mix Asphalt - Driveway Pavement, 2"	SY	1,715.00		
16	Aggregate for Temporary Access	TN	150.00		
17	Bituminous Materials (Prime Coat)	GA	17,545.00		
18	Aggregate Prime	TN	90.80		
19	Hot-Mix Asphalt Surface Course, Mix "D",N50	TN	7,420.00		
20	Leveling Binder (Machine Method),N50	TN	7,140.00		
21	Hot-Mix Asphalt Binder Course, IL-19.0, N50	TN	1,000.00		
22	PCC Driveway Pavement, 5"	SY	2,985.00		
23	PCC Sidewalk, 4"	SF	9,705.00		
24	Detectable Warnings	EA	79.00		
25	Combination Curb & Gutter Removal	LF	15,790.00		
26	Hot-Mix Asphalt Surface Removal, Variable Depth	SY	83,804.00		

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
27	Sidewalk Removal	SF	9,705.00		
28	Driveway Pavement Removal	SY	4,700.00		
29	Class D Patching, Type II, 4"	SY	50.00		
30	Class D Patching, Type III, 4"	SY	50.00		
31	Class D Patching, Type IV, 4"	SY	700.00		
32	Class D Patching, Type II, 9"	SY	30.00		
33	Class D Patching, Type III, 9"	SY	30.00		
34	Class D Patching, Type IV, 9"	SY	1,140.00		
35	Class D Patching, Type II, 12"	SY	35.00		
36	Cold Patch	TN	100.00		
37	Storm Sewers, PVC, SDR-26, 4"	LF	20.00		
38	Storm Sewers, PVC, SDR-26, 6"	LF	20.00		
39	Storm Sewers, PVC, SDR-26, 10"	LF	20.00		
40	Storm Sewers, PVC, SDR-26, 12"	LF	20.00		
41	Storm Sewers, PVC, SDR-26, 8" Water Quality Pipe	LF	20.00		
42	Storm Sewers, PVC, SDR-26, 10" Water Quality Pipe	LF	78.00		
43	Storm Sewers, PVC, SDR-26, 12" Water Quality Pipe	LF	40.00		
44	Storm Sewers, PVC, SDR-26, 15" Water Quality Pipe	LF	20.00		
45	Sanitary Sewers, PVC, SDR-26, 6"	LF	20.00		
46	Sanitary Sewers, PVC, SDR-26, 8"	LF	20.00		
47	Sanitary Sewers, PVC, SDR-26, 8" Water Quality Pipe	LF	92.00		
48	Water Main, DIP, CL52, Push Joints, Trenched, 6"	LF	90.00		
49	Water Main, DIP, CL52, Push Joints, Trenched, 8"	LF	2,422.00		
50	WM, DIP, Restrained Joints, Horiz Directional Drill, 8"	LF	100.00		
51	WM, DIP, Restrained Joints, Trenched & Encased, 8"	LF	24.00		
52	Polyethylene Encasement	LF	2,762.00		
53	Water Valves, 8"	EA	4.00		
54	Fire Hydrants	EA	6.00		
55	Cut & Install Endcaps	EA	2.00		
56	Water Service Line, 1"	LF	500.00		
57	Water Service Line, 1 1/4"	LF	15.00		
58	Water Service Line, 1 1/2"	LF	30.00		
59	Water Service Complete	EA	18.00		
60	Adjust Sanitary Sewer 8" or Less	LF	330.00		
61	Fire Hydrants To Be Removed	EA	4.00		
62	Domestic Water Service Box Replacement	EA	2.00		
63	Manholes 4' Dia, T1FCL, < 8'	EA	4.00		
64	Sanitary Manholes 4' Dia, T1FCL, < 8', Chimney Seal	EA	1.00		
65	Catch Basins, 2' Dia, 3010-A	EA	3.00		
66	Catch Basins, 3' Dia, 3010-A	EA	42.00		
67	Catch Basins, 3' Dia, 3010-L	EA	7.00		
68	Catch Basins, 3' Dia, 3210-A	EA	5.00		
69	Catch Basins, 3' Dia, 3210-L	EA	1.00		
70	Catch Basins, 3' Dia, T1FOL	EA	1.00		
71	Valve Boxs To Be Adjusted	EA	2.00		
72	Domestic Water Service Box Adjustment	EA	4.00		

RETURN WITH BID

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
73	Sanitary Manholes To Be Adjusted	EA	2.00		
74	Manhole To Be Adjusted	EA	11.00		
75	Mhs To Be Adjusted With New Frame and Lid, T1FCL	EA	3.00		
76	Mhs To Be Rcnstrctd With New Frame and Lid, T1FCL	EA	1.00		
77	Mhs To Be Rcnstrctd With New Frame and Lid, T1FOL	EA	1.00		
78	San Manholes Tba With New Frame & Lid, T1FCL, CS	EA	17.00		
79	CBs To Be Adjusted With New Frame and Grate, T1FOL	EA	1.00		
80	CBs To Be Adjusted With New Frame and Grate, 3010-A	EA	22.00		
81	CBs To Be Adjusted With New Frame and Grate, 3010-L	EA	1.00		
82	CBs To Be Adjusted With New Frame and Grate, 3210-A	EA	2.00		
83	Combination Concrete Curb & Gutter, B-6.12	LF	4,720.00		
84	Combination Concrete Curb & Gutter, B-6.18	LF	50.00		
85	Combination Concrete Curb & Gutter, M-3.12	LF	5,940.00		
86	Combination Concrete Curb & Gutter, M-3.18	LF	4,800.00		
87	Traffic Control & Protection	LS	1.00		
88	Paint Pavement Marking - Line, 4"	LF	7,657.00		
89	Paint Pavement Marking - Line, 6"	LF	126.00		
90	Paint Pavement Marking - Line, 12"	LF	90.00		
91	Paint Pavement Marking - Line, 24"	LF	530.00		
92	Paint Pavement Marking - Letters & Symbols	SF	197.90		
93	Aggregate Shoulder Type A, Variable Width	TN	27.00		
94	Detector Loop, Type I	LF	180.00		

CONTRACTOR CERTIFICATIONS

County	DuPage
Local Public Agency	City of Wheaton
Section Number	16-00114-00-FP
Route	Various Streets

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Deliquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

   A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

   A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be cancelled.

County DuPage
Local Public Agency City of Wheaton
Section Number 16-00114-00-FP
Route Various Streets

SIGNATURES

(If an individual)

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed By _____

Business Address _____

Inset Names and Addressed of All Partners _____

(If a corporation)

Corporate Name _____

Signed By _____
President

Business Address _____

Insert Names of Officers

President _____

Secretary _____

Treasurer _____

Attest: _____
Secretary

Illinois Department of Transportation

Local Agency Proposal Bid Bond

Route: Various Streets
County: DuPage
Local Agency: City of Wheaton
Section: 16-00114-00-FP

RETURN WITH BID

PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____

Principal

_____ (Company Name)

By: _____ (Signature and Title)

_____ (Company Name)

By: _____ (Signature and Title)

(If PRINCIPLE is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

_____ (Name of Surety)

By: _____ (Signature of Attorney-in-Fact)

STATE OF ILLINOIS,

COUNTY OF _____

I. _____, a Notary Public in and for said county,

do hereby certify that _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____

My commission expires _____

_____ (Notary Public)

ELECTRONIC BID BOND

☐ **Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)**

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

_____ (Company/Bidder Name)

_____ (Signature and Title)

_____ Date

BLR 12230 (Rev. 7/05

Illinois Department of Transportation

Apprenticeship or Training Program Certification

Return with Bid

Route	Various Streets
County	DuPage
Local Agency	City of Wheaton
Section	16-00116-00-EP

All contractors are required to complete the following certification:

☒ For this contract proposal or for all groups in this deliver and install proposal.

☐ For the following deliver and install groups in this material proposal:

Illinois Department of Transportation policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. The award decision is subject to approval by the Department. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders' subcontractors to disclose participation in apprenticeship or training programs that are (1) approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and (2) applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

I. Except as provided in paragraph IV below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.

II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval either (A) is, at the time of such bid, participating in an approved, applicable apprenticeship or training program; or (B) will, prior to commencement of performance of work pursuant to this contract, establish participation in an approved apprenticeship or training program applicable to the work of the subcontract.

III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

IV. Except for any work identified above, any bidder or subcontractor that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership. ☐

_____

_____

_____

_____

_____

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. The Department at any time before or after award may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. In order to fulfill the participation requirement, it shall not be necessary that any applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract or deliver and install proposal.

Bidder: _____ By: _____
(Signature)

Address: _____ Title: _____

RETURN WITH BID

Illinois Department of Transportation

Affidavit of Illinois Business Office

County DuPage County
Local Public Agency City of Wheaton
Section Number 16-00114-00-FP
Route Various Streets

State of Illinois)
) ss.
County of DuPage)

I, _____ of _____ , _____ ,
(Name of Affiant) (City of Affiant) (State of Affiant

being first duly sworn upon oath, states as follows:

1. That I am the _____ of _____ .
officer or position bidder
2. That I have personal knowledge of the facts herein stated.
3. That, if selected under this proposal, _____ , will maintain a
(bidder)
business office in the State of Illinois which will be located in _____ County, Illinois.
4. That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal.
5. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code.

_____
(Signature)

_____
(Print Name of Affiant)

This instrument was acknowledged before me on day of _____ , _____ .

(SEAL)

_____
(Signature of Notary Public)

INDEX OF SPECIAL PROVISIONS

*** indicates parts of proposal to be returned with bid**

16. **IDOT DISTRICT 1 MATERIALS SPECIAL PROVISIONS**
17. **CITY OF WHEATON SWPPP PLAN**
18. **IDOT DISTRICT ONE AND CITY OF WHEATON PROJECT DETAILS**
19. **IDOT HIGHWAY STANDARDS NOT SHOWN IN PLAN SET**
20. SEALED BID – ENVELOPE LABEL

*** indicates parts of proposal to be returned with bid**

Illinois Department of Transportation

Special Provisions

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2012 , the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of Section # 16-00114-00-FP , and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

See Attached for the Following Special Provisions and Materials Information:

Location of Improvements

Description of Improvements

Check Sheet for City of Wheaton Special Provisions

City of Wheaton Special Provisions

City of Wheaton - SWPPP Plan

City of Wheaton - Insurance Coverage for Contractual Services

City of Wheaton - Certificate of Compliance

City of Wheaton - Listing of Material Suppliers & Listing of Subcontractors, Consultants, and Agents

City of Wheaton Water Distribution Specifications

Product Information and Specification List

- Valve Box Adaptor II
- Infi-Shield Uniband
- Canusa Wrap - Pipe Wrap
- Inra - RISER Rubber Adjustment Riser
- Catch-All Inlet Protector
- Detectable Warning Systems E-Z Set Warning Panels

Pavement Markings and Traffic Control Devices

Curb Ramp for Side Walks

Trench Backfill Chart

LOCATION OF IMPROVEMENTS
SPECIAL PROVISIONS SHEET 2

Street Names	Construction Limits
Rehabilitation	
Blackburn Street	Loughborough Court to Briacliffe Boulevard
Loughborough Court	President Street to Blackburn Street
Resurfacing	
Center Avenue	WWHS to Warrenville Avenue
Chase Street	Pershing Avenue to Route 38
Morgan Avenue	Manchester Road to Childs Street
Morgan Avenue	Childs Street to End (Creek)
Park Avenue	Hale Street to Warrenville Road
*Park Avenue	Warrenville Road to Dead End
Thomas Road	Papworth Street to Thomas Road
Thomas Road	Papworth Street to Cul-De-Sac
Wheaton Avenue	Park Avenue to Arbor Avenue
Wheaton Avenue	Park Avenue to Route 38
Wilson Avenue	Prospect Street to Cul-De-Sac
Subdivision Rehabilitation	
Brookshire Subdivision	
Hemstock Avenue	Wiesbrook Road to Orth Drive
Orth Court	Cul-De-Sac to Orth Drive
Orth Avenue	Wiesbrook Road to Orth Drive
Springbrook Unit 1	
*Gone Away Court	Surrey Lane to Cul-De-Sac
*Gone Away Lane	Creekside Drive to Gone Away Court
*Surrey Drive	Wiesbrook Road to Gone Away Lane
Subdivision Resurfacing	
Adare Farms Units 1 & 2	
Adare Drive	Route 38 to Creekside Drive
Caxton Drive	Adare Drive to Kilkenny Drive
Clifden Court	Wexford Circle to Cul-De-Sac
Courtenay Drive	Creekside Drive to Westhaven Drive
Creekside Drive	Cul-De-Sac to Spring Green Drive
Kilkenny Drive	Adare Drive to Courtnay Drive
Wexford Circle	Creekside Drive to Creekside Drive
The Streams Unit 5	
County Farm Road	Shaffner Road to Stonebridge Trail
Belleau Woods Drive	Shaffner Road to Belleau Woods Court
County Farm Court	Stonebridge Trail to Cul-De-Sac
Stone Bridge Trail	County Farm Road to Spring Green Trail
* water main work included on these streets	

CITY OF WHEATON
2016 ROAD, SEWER, and WATER REHABILITATION PROGRAM

Special Provisions - Sheet 3

PROPOSED IMPROVEMENTS

Approximately 74,341 SY of pavement overlay including pavement milling, leveling binder, area reflective crack control treatment, & surface course; 11,501 SY of pavement rehabilitation including curb & gutter, drive approach & sidewalk removal & replacement, pavement milling, leveling binder, area reflective crack, control treatment, & surface course; storm & sanitary structure replacement; water main replacement; water service replacement; & landscaping along various streets in the City of Wheaton.

Maintenance of Roadways

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

TRAFFIC CONTROL PLAN
Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS: 701501-06, 701611-01, 701901-05, 701606-10, 780001-05, 781001-04, 701801-06

DETAILS: TC-10, TC-13.

SPECIAL PROVISIONS: Traffic Control and Protection, LRS 3 Work Zone Traffic Control, LRS 4 Flaggers in Work Zones, District 1 - Maintenance of Roadways

STATUS OF UTILITIES TO BE ADJUSTED
Effective: January 30, 1987
Revised: January 24, 2013

Utilities companies involved in this project have provided the following estimated durations:

Name of Utility	**Type**	**Location**	**Estimated Duration of Time for the Completion of Relocation or Adjustments**
AT&T Janet Ahern (630) 573-6414	Telecom	None	
Comcast Martha Gieras (630) 600-6352	Cable	None	
NiCor Bruce Koppang (630) 388-3046	Natural Gas	None	
ComEd Eric Jostes 708-518-6209	Electricity	None	

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

In accordance with 605 ILCS 5/9-113 of the Illinois Compiled Statutes, utility companies have 90 days to complete the relocation of their facilities after receipt of written notice from the Department. The 90-day written notice will be sent to the utility companies after the following occurs:

1) Proposed right of way is clear for contract award.
2) Final plans have been sent to and received by the utility company.
3) Utility permit is received by the Department and the Department is ready to issue said permit.
4) If a permit has not been submitted, a 15 day letter is sent to the utility company notifying them they have 15 days to provide their permit application. After allowing 15 days for submission of the permit the 90 day notice is sent to the utility company.
5) Any time within the 90 day relocation period the utility company may request a waiver for additional time to complete their relocation. The Department has 10 days to review and respond to a waiver request.

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2015

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 1-1-12) (Revised 1-1-15)

SUPPLEMENTAL SPECIFICATIONS

CHECK SHEET
FOR
RECURRING SPECIAL PROVISIONS

Adopted January 1, 2015

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

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CHECK SHEET
FOR
LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Adopted January 1, 2015

The following LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012
Revise: August 15, 2014

Revise Section 1031 of the Standard Specifications to read:

"**SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES**

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve . RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including

unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. “Non- Quality, FRAP -#4 or Type 2 RAS”, etc…).

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(4) Conglomerate “D” Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as “Non-Quality”.

RAP or FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. FRAP and RAS testing shall be according to the following.

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(2) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

(3) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample of FRAP, shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

(1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

(2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm}. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.3 %
G_{mm}	± 0.03 [1/]

1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, “Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity”.

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, “Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)” or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 µm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision	
% Passing:[1/]	FRAP	RAS
1 / 2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	3.0%
No. 200	2.2%	2.5%
Asphalt Binder Content	0.3%	1.0%
G_{mm}	0.030	

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.

(3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

(a) FRAP. The use of FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.

(3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.

(b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

(c) FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Max Asphalt Binder Replacement for FRAP with RAS Combination

HMA Mixtures [1/ 2/]	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified [3/]
30L	50	40	10
50	40	35	10
70	40	30	10
90	40	30	10[4/]
4.75 mm N-50			30
SMA N-80			20

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

3/ When the ABR for SMA or IL-4.75 is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.

4/ For polymerized surface mix used for overlays, with up to 10 percent ABR, a SBS PG70-22 will be required. However, if used in full depth HMA, a SBS PG70-28 will be required.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

(a) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. HMA production utilizing FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS and FRAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(b) HMA Plant Requirements. HMA plants utilizing FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAS and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)

i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.

j. Accumulated mixture tonnage.

k. Dust Removed (accumulated to the nearest 0.1 ton)

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

f. RAS and FRAP weight to the nearest pound (kilogram).

g. Virgin asphalt binder weight to the nearest pound (kilogram).

h. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of

RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except “Non-Quality” and “FRAP”. The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research’s Policy Memorandum, “Reclaimed Asphalt Pavement (RAP) for Aggregate Applications”

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders.”

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets

SPECIAL PROVISION FOR FILLING HMA CORE HOLES WITH NON-SHRINK GROUT

Effective: January 1, 2008

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

Add the following after the first paragraph of Article 406.07(c) of the Standard Specifications:

> "Upon completion of coring for density testing, all free water shall be removed from the core holes prior to filling. All core holes shall be filled with a non-shrink grout from the Department's approved list, which shall be mixed in a separate container prior to placement in the hole. Only enough water to permit placement and consolidation by rodding shall be used, and the material shall be struck-off flush with the adjacent pavement."

ADJUSTMENTS AND RECONSTRUCTIONS
Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

"(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) …… 1030
(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)"

Revise Article 603.07 of the Standard Specifications to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)

Thickness at inside edge	Height of casting $\pm$ 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (D-1)
Effective: May 1, 2007
Revised: January 1, 2012

Revise Article 1003.03 (c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 22. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

FRICTION SURFACE AGGREGATE (D1)

Effective: January 1, 2011
Revised: January 24, 2013

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

"(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.

a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).

b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"**1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following revisions.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete

<table>
<tr><th>Use</th><th>Mixture</th><th>Aggregates Allowed</th></tr>
<tr><td>HMA
All Other</td><td>Shoulders</td><td><u>Allowed Alone or in Combination:</u>

Gravel
Crushed Gravel
Carbonate Crushed Stone
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) [1/]
Crushed Steel Slag[1/]
Crushed Concrete</td></tr>
<tr><td>HMA
High ESAL
Low ESAL</td><td>C Surface
IL-12.5,IL-9.5,
or IL-9.5L</td><td><u>Allowed Alone or in Combination:</u>

Crushed Gravel
Carbonate Crushed Stone
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) [1/]
Crushed Steel Slag[1/]
Crushed Concrete</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">D Surface
IL-12.5 or
IL-9.5</td><td><u>Allowed Alone or in Combination:</u>

Crushed Gravel
Carbonate Crushed Stone (other than Limestone)
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF) [1/]
Crushed Steel Slag[1/]
Crushed Concrete</td></tr>
<tr><td><u>Other Combinations Allowed:</u>

Up to... | With...</td></tr>
<tr><td>25% Limestone | Dolomite</td></tr>
<tr><td>50% Limestone | Any Mixture D aggregate other than Dolomite</td></tr>
</table>

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td></td><td></td><td>75% Limestone</td><td>Crushed Slag (ACBF)[1/] or Crushed Sandstone</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">F Surface
IL-12.5 or
IL-9.5</td><td colspan="2"><u>Allowed Alone or in Combination:</u>

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)[1/]
Crushed Steel Slag[1/]

No Limestone or no Crushed Gravel alone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed:</u></td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Crushed Gravel, or Dolomite</td><td>Crushed Sandstone, Crushed Slag (ACBF)[1/], Crushed Steel Slag[1/], or Crystalline Crushed Stone</td></tr>
<tr><td>HMA
High ESAL</td><td>SMA
Ndesign 80
Surface</td><td colspan="2">Crystalline Crushed Stone
Crushed Sandstone
Crushed Steel Slag[1/]</td></tr>
</table>

1/ When either slag is used, the blend percentages listed shall be by volume.

Add to Article 1004.03 (b) of the Standard Specifications to read:

" When using Crushed Concrete, the quality shall be determined as follows. The Contractor shall obtain a representative sample from the stockpile, witnessed by the

Engineer, at a frequency of 2500 tons (2300 metric tons). The sample shall be a minimum of 50 lb (25 kg). The Contractor shall submit the sample to the District Office. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent by weight will be applied for acceptance. The stockpile shall be sealed until test results are complete and found to meet the specifications above."

Wire and Cable

Effective: January 1, 2012

Add the following to the first paragraph of Article 1066.02(a):

> "The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals."

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

Aerial Electric Cable Properties

Phase Conductor				Messenger wire	
Size AWG	Stranding	Average Insulation Thickness		Minimum Size AWG	Stranding
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Add the following to Article 1066.03(b) of the Standard Specifications:

> "Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE."

Revise Article 1066.04 to read:

> **"**Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is "Palomino". The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474."

Revise the second paragraph of Article 1066.05 to read:

> "The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing."

PREQUALIFICATION OF BIDDERS

Add the following to Section 102 of the Standard Specifications:

"Each prospective bidder, in evidence of competence, shall furnish the Awarding Authority as a prerequisite to the release of proposal forms by the Awarding Authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Illinois Department of Transportation, according to the IDOT "Prequalification Manual".

For this project, firms wishing to bid as a Prime Contractor shall have a type of work rating of at least 50% for IDOT's category 003 - Hot-Mix Asphalt (HMA) Plant."

DIRT ON PAVEMENT OR STRUCTURES

Add the following after the first paragraph of Article 107.15 of the Standard Specifications:

"All areas other than pavement shall be cleaned up as directed by the ENGINEER. The CONTRACTOR shall remove all refuse and unused material of any type and clean all areas disrupted from work. This shall include, but not limited to, restoring surface drainage in earthen areas to ensure acceptable surface water runoff.

Failure to comply within 24 hours after receipt of a written or email request from the MUNICIPALITY, shall result in deduction in the contract amount for reimbursement to the MUNICIPALTY to complete this work."

USE OF FIRE HYDRANTS

Add the following after the first paragraph of Article 107.18 of the Standard Specifications:

"Water shall be available to the CONTRACTOR free of charge during construction operations. The CONTRACTOR shall be responsible for accountability of water usage by means of a water meter. A water meter is available and may be obtained from the City of Wheaton Water Department for a deposit of Seven Hundred Dollars ($700) which shall be refunded upon return of the meter in good condition, to the City of Wheaton Water Department."

CERTIFICATE OF INSURANCE

Add the following after the third paragraph of Article 107.27 of the Standard Specifications:

"A certificate of insurance shall be executed by the bidders and insurance company. Said certificate of insurance must name the City of Wheaton as additionally insured. No WORK of any kind will begin until a suitable certificate of insurance has been submitted and approved by the MUNICIPALITY."

DUST CONTROL WATERING

Add the following after the fourth paragraph of Article 107.36 of the Standard Specifications:

"Dust shall be controlled by sweeping, vacuuming and wetting pavement in a manner to mitigate excessive dust and debris in the pavement. The Contractor shall provide a sweeper at the end of each work week or as directed by the Engineer.

The Contractor shall respond to the Engineer's request to provide a sweeper within 4 hours of verbal and written request. Failure to comply with this request shall result in a stoppage of work until the site is hand swept to the Engineer's satisfaction. The Contractor, when requested, shall sweep all pavement surfaces at the end of the day before 5:00PM.

Failure to comply with the Engineer's request shall result in a penalty of $800.00 per day."

Revise the last paragraph of Article 107.36 to read as follows:

Method of Measurement. The work will be measured for payment in units of ½ hours of sweeping time. The Contractor shall provide the Engineer with copies of all sweeping tickets which shall contain records of the date, location, and number of hours sweeping equipment was in use on the specific project. Failure to provide tickets shall result in no payment.

Basis of Payment. Sweeping and wetting of streets will be paid for at the contract unit price per unit for DUST CONTROL WATERING.

PROGRESS SCHEDULE

Add the following after the second paragraph of Article 108.02 of the Standard Specifications:

Work on each street or subdivision shall proceed in a continuous manner. Each street or subdivision shall be considered as a contract within itself. Each phase of work such as underground, patching, concrete curb and gutter, concrete flatwork, paving, landscaping, etc., shall begin within three (3) days of the completion of the previous controlling phase. Should the contractor fail to begin working on a controlling phase within three (3) days of completion of the previous phase on each street or subdivision, or within such extended time as may have been allowed, the contractor shall be liable to the owner in the amount of $1,000.00 per calendar day, not as a penalty, but as liquidated damages, for each day beyond the third day after completion of the previous controlling work phase.

The Special Provisions specify the number of working days required to complete each street or subdivision. The contractor shall be held responsible for complying with this schedule unless a revised written work-day schedule is submitted to the engineer for approval on each street and/or subdivision under this contract.

The Contractor shall provide a construction schedule by the time of the preconstruction conference which shall meet the following considerations:

a) Postpone work on Thomas Road, Center Avenue, Wheaton Avenue and Park Avenue (east of Warrenville Road) until June 2nd, 2016. Work on these streets shall be completed no later than August 12th, 2016.

All work required as part of this project shall be completed no later than **September 9, 2016**.

ONE YEAR GUARANTEE (NON-MFT)

Any defective material, or workmanship, or any unfaithful or imperfect work, which may be discovered before the final acceptance of the work and/or within one (1) year thereafter, shall be corrected immediately on the requirements of the Engineer, without extra charge, notwithstanding that it may have been overlooked in the previous inspections and estimates. Failure to review construction shall not relieve the Contractor from any obligation to perform sound and reliable work as herein described.

To insure compliance with this provision, the Contractor shall provide the City with a Maintenance Bond for 10 percent of the final contract amount. This Bond shall cover a period of one (1) year from the date of final acceptance, which shall be defined as the date of the final payment estimate.

The Contractor warrants to the Owner and Engineer that all materials and equipment furnished under the Contract will be new and, in the case of equipment, in good working order, that all materials, equipment and labor furnished under the Contract will be free from defects of any kind and shall be in strict conformance with the contract requirements. This warranty shall not be restricted by the limitations of any manufacturer's warranty. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Liability or refusal of a Subcontractor or equipment supplier responsible for the defective work or materials, to correct or replace same, shall not excuse the Contractor from performing under this warranty.

This item shall be paid for at the Contract unit price per lump sum for **ONE YEAR GUARANTEE (NON-MFT)**, which price shall be payment in full for guarantee provisions noted herein.

CONSTRUCTION REQUIREMENTS

Add the following after the last paragraph of Article 202.03 of the Standard Specifications:

"No additional compensation shall be given for the installation, removal and disposal of material used but shall be considered included in the contract."

TRENCH BACKFILL

Add the following after the first paragraph of Article 208.01 of the Standard Specifications:

"Compaction shall be done by mechanical means whenever possible. Jetting shall be permitted only when mechanical means are not possible. Compaction shall be a minimum of 95% of the maximum laboratory density for CA-6 gravel. The Engineer shall determine when jetting is permitted. The Contractor shall receive written permission from the Engineer to perform jetting in lieu of mechanical compaction."

Add the following after the first paragraph of Article 208.02 (b) of the Standard Specifications:

"Trench backfill shall be a well graded granular material equivalent to I.D.O.T. CA-6, per Section 1004 of the Standard Specifications."

Add the following after the first paragraph of Article 208.03 (b) of the Standard Specifications:

"The actual quantity shall be computed using the State of Illinois Department of Transportation Division of Highways Trench Backfill Table adopted January 1, 2002."

TOPSOIL FURNISH AND PLACE

Add the following after the first paragraph of Article 211.01 of the Standard Specifications.

"All areas in that portion of the parkway adjacent to curb replacement sections, sanitary or storm sewer replacement, or water main installations disturbed during construction shall be restored."

Add the following after the first paragraph of Article 211.04 of the Standard Specifications.

"Prior to the top soil placement, the disturbed parkway areas shall be inspected by the Engineer and authorization received by the Contractor to proceed with the work as specified herein. Contractor shall provide a minimum of 4" of topsoil to finished elevation.

Add the following after the first paragraph of Article 211.05 of the Standard Specifications.

"The parkway shall be cleared of all debris and all trenches shall be fully compacted. Topsoil shall then be placed at the specified depth and rolled. The surface shall be leveled by having all depressions filled and high spots removed."

Revise Article 211.07(b) of the Standard Specification to read:

"Topsoil furnish and place shall be that material obtained from outside the right-of-way and will be measured in cubic yards as documented delivered to the site."

Revise Article 211.08 of the Standard Specification to read:

"This work will be paid for at the contract unit price per cubic yard for **TOPSOIL FURNISH AND PLACE."**

It will be the responsibility of the Contractor to notify the Engineer once all the required waterings have been completed. If it is determined that additional watering will be required, the Engineer will notify the Contractor to proceed with supplemental watering for a determined amount of time.

The Contractor shall secure a separate water meter for watering sod and seed. Failure to comply shall result in no payment for **SUPPLEMENTAL WATERING**.

Restoration of parkways shall be completed no later than ***September 9, 2016***. Failure to restore all areas by ***September 9, 2016***, shall result in liquidated damages.

SODDING

Work shall be in accordance with Section 252 of the Standard Specifications, except that the sod shall be rolled prior to watering.

INLET FILTERS

Add the following after the second subparagraph of Article 280.04(c) of the Standard Specification:

"Inlet Filter Systems shall be the "Catch-All" with Overflow, as furnished by MarMac Manufacturing Co., or approved equal. "Dandy Sacs" will not be allowed.

The Filter bag shall be constructed of a polypropylene filter geotextile fabric with a minimum weight of 4 ounces per square yard, a minimum flow rate of 145 gallons per minute per square foot, and designed for a minimum silt and debris capacity of 2 cubic feet. The filter bag shall be reinforced with a polyester mesh fabric with a minimum weight of 4 ounces per square yard. The filter bag shall be suspended from a galvanized steel ring, or frame conforming to ASTM-A36, utilizing a stainless steel band and locking clamp. The frame shall be designed with an overflow feature to prevent any ponding between scheduled cleanings."

Add the following after first paragraph of Article 280.05 of the Standard Specifications:

"The Contractor shall inspect, and clean all inlet erosion control every week or after a half inch rainfall, or as directed by the Engineer."

Revise the second paragraph of Article 280.08 of the Standard Specifications to read:

"Maintenance of temporary erosion control systems shall be included in the cost of this item."

Revise the second paragraph of Article 280.08(d) of the Standard Specifications to read:

"All costs for furnishing, installing, and maintaining inlet filters, shall be paid for at the contract unit price per each for **INLET FILTERS**."

TREE ROOT PRUNING

Add the following after the first paragraph of Article 201.06 of the Standard Specifications:

"A copy of a letter of qualification shall be provided to the Engineer for inspection."

Add the following after the second paragraph of Article 201.06 of the Standard Specifications:

"All cut roots exposed shall be cleared from the site and disposed of without any additional compensation for the work."

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

Section 1031. The use of Reclaimed Asphalt Shingles (RAS) will not be allowed.

PORTLAND CEMENT CONCRETE BASE COURSE WIDENING

Work shall be accordance to Section 354 of the Standard Specifications except for:

a) The Portland cement concrete used shall be Class PV.

b) All loose and deleterious material shall be removed from this space prior to placement of the concrete. The base shall be compacted as well as possible.

c) The final surface of the patch shall be such that it shall be flush with the surface of the existing pavement and lower at the edge of the new combination curb and gutter to provide for the specified street resurfacing as shown on the street cross section detail.

d) The finished surface shall have a rough-broomed texture.

e) Prior to placing the concrete, the exposed edge of all existing pavement shall be machine sawed perpendicular and clean and the excavation shall be free of loose material to the satisfaction of the Engineer.

f) The concrete shall be consolidated in some manner, such as vibrating or rodding, to assure that there are no voids present after the concrete sets.

g) A maximum width of 8" shall be used in the computation of the area for this item.

HOT-MIX ASPHALT - DRIVEWAY PAVEMENT, 2”

Description. This work shall consist of constructing hot-mix asphalt driveway pavement on a prepared subgrade.

Materials. Materials shall be according to the following:

Item	Article /Section
(a) Hot-Mix Asphalt - Mix “D”, N50	1030
(b) Coarse Aggregate – CA-6	1004.01

Subgrade Preparation. This work shall consist of furnishing, transporting, placing, and compacting course aggregate. The aggregate base course shall be a minimum of 8" in thickness.

General. The measurements of driveway widths, as shown on the plans, are measurements at the sidewalk or property line as the case may be. The drive approaches shall be installed with 3' or 6’ flares as shown on the plans or as specified by the ENGINEER.

Method of Measurement. This work will be measured for payment in place and the area computed in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for **HOT-MIX ASPHALT - DRIVEWAY PAVEMENT** of the thickness specified, and shall include aggregate base course, hot-mix asphalt surface, all required machine sawing, and necessary materials as shown on the plans or in the Standard Specifications or as determined by the Engineer.

Driveway pavement removal shall be measured and paid for separately.

PORTLAND CEMENT CONCRETE SIDEWALK

Add the following after the first paragraph of Article 424.04 of the Standard Specifications:

"Aggregate base shall be installed with CA-6 Granulated material to a minimum depth of 4 in. to provide a suitable base on which to pour the sidewalk."

Add the following after the first paragraph of Article 424.05 of the Standard Specifications:

The contractor shall install 2 number 5 rebar on existing sidewalk or at any cold joint. This shall be considered included in the contract unit price

Add the following after the second paragraph of Article 424.06 of the Standard Specifications:

"The contractor shall apply a Concrete Curing Sealant, which shall be included in the contract unit price."

Revise the third paragraph of Article 424.13 of the Standard Specifications to read:

"Earth excavation and disposal of surplus or waste material shall be included in the contract unit price."

CONCRETE CURING AND SEALING

Curing and sealing of all concrete gutter flags, faces and tops of curbs, sidewalks, and driveway pavements shall utilize the membrane curing method in accordance to Article 1020.13(a)(4) of the Standard Specifications.

Concrete curing materials shall be in accordance to Article 1022.01 of the Standard Specification except the Contractor shall use W.R. Meadows Vocomp-20 Cure and Seal or approved equal.

All flat surfaces that are not cured by membrane curing compounds shall have protective coat applied to them in accordance to Article 1023 of the Standard Specification if conditions prohibit application of cure and seal products.

All labor, equipment, and materials necessary to complete this work shall be included in the cost of the concrete items.

DETECTABLE WARNINGS

Detectable warning tiles shall follow Article 424.09 with exception that the contractor shall provide samples to the engineer for approval prior to use.

Amend Article 424.12 to read as follow: Measurement of panel installed shall be computed and paid for as EACH

Revise the last paragraph of Article 424.13 of the Standard Specifications to read:

This item shall be paid for at the contract unit price per each for **DETECTABLE WARNINGS,** which price shall be considered full compensation for all labor, equipment, and materials necessary for installation.

COMBINATION CURB AND GUTTER REMOVAL

Revise the fourth paragraph of Article 440.01, and the fourth paragraph of Article 440.03 of the Standard Specifications to read:

"Gutter removal and combination curb and gutter removal shall only include the complete removal of all inlets, outlets, and entrances if shown on the plans or as directed by the Engineer. Any removal of outlets shall include the entire discharge trough and end curtain wall for trough type outlets and the concrete box and outlet pipe for drop box type outlets."

Add the following after the first paragraph of Article 440.03 of the Standard Specifications:

"The Contractor shall machine saw a full-depth joint between the portion of the curb and gutter to be removed and the bituminous surface to be left in place unless otherwise directed by the Engineer. The sawing shall be accomplished with a concrete sawing machine to prevent the surface from spalling when the concrete is broken out. This work shall be done in such a manner that a straight joint shall be secured. None of the removed material shall be stockpiled on the site unless it is approved as backfill by the Engineer."

CONCRETE PAVEMENT REMOVAL PARTIAL DEPTH, 2"

Work shall be in accordance to Section 440 of the Standard Specifications:

Portland cement concrete pavement on Surrey Drive, Orth Drive and Orth Court shall be removed to the depth specified with a self-propelled milling machine.

This work will be paid for at the contract unit price per square yard for **CONCRETE PAVEMENT REMOVAL PARTIAL DEPTH, 2".**

AGGREGATE SHOULDER TYPE A, VARIABLE WIDTH

Add the following after the first paragraph of Article 481.04 of the Standard Specifications.

"The sub base shall be prepared in such a manner that the aggregate shoulder shall be flush with the existing landscape."

Revise the first sentence of Article 481.06 of the Standard Specifications to read.

"Aggregate shoulder shall be placed to a minimum depth of 1.5 inches but shall not exceed 3.0 inches."

Add the following after the first paragraph of Article 481.06 of the Standard Specifications.

"Aggregate shoulder shall be placed with a minimum width of 6 inches and not to exceed 2 feet. The contractor shall use mechanical methods to prepare the edge of pavement. Use of the roto-mill or similar

equipment shall be permitted. In some cases, shoulder placement shall be performed by hand rather than a spreader box. The Engineer shall determine the limits of shoulder placement."

Add the following after the fourth paragraph of Article 481.06 of the Standard Specifications.

"The Engineer shall reserve the right to omit placing shoulder in cases where the new pavement is at grade with the existing landscape or where the slope between the edge of pavement and the existing ditch line will not facilitate shoulder placement."

The Contractor shall receive approval from the Engineer prior to placing aggregate."

Add the following after the first paragraph of Article 481.10 of the Standard Specifications.

"The preparation, removal and disposal of all spoils prior to shoulder placement shall be considered included in the cost of this item."

Revise the first paragraph of Article 481.07 to read as follows:

"The contactor shall prepare the aggregate wedge shoulder by removal of vegetation to a depth of 3 inches. The new shoulder shall be constructed in accordance to pertinent Articles of Section 481 of the Standard Specification. The engineer shall determine the location of the proposed shoulder. The contractor shall check with the Engineer on the methods to be used for placement of shoulder. Some shoulder shall be placed by hand while other areas can be placed with a spreader box. The contractor shall compact the shoulder with those methods discussed in Article 481.06 of the Standard Specification."

The contractor can opt to prepare the shoulder wedge in sections where the edge is not defined or where vegetation is present during the pavement removal process.

Preparation of the shoulder wedge, removal of spoils and methods to install shoulder by hand shall be considered included in this line item."

CLASS D PATCHES

Work shall be in accordance to Section 442 of the Standard Specifications except for:

"Areas of sewer or water main construction, the work shall consist of full-depth removal of the existing pavement over areas of proposed construction. The Contractor shall machine saw a perpendicular, full-depth, and clean joint between the portion of pavement to be removed and that to be left in place to prevent damage to the remaining pavement during removal operations.

The cost of full-depth machine sawing shall be included in the unit price of this item and no additional compensation will be given for this work.

All patching under this line item shall be completed within seventy-two hours after the underground work has been accomplished."

Revise the fourth paragraph of Article 442.05 of the Standard Specification to read:

"The unit cost of this item shall include the disposal of materials resulting from the removal of the existing pavement and unsuitable and unstable materials."

STORM SEWERS

Work shall be in accordance to Section 550 of the Standard Specifications except for the following:

The Owner shall provide T.V. reports, if available.

Polyvinyl Pipe (PVC) Sewer Pipe Joints shall be solvent welded joints per ASTM D 2855 or flexible elastomeric seals per ASTM D 3212.

Once all underground work has been completed, the Contractor shall patch the areas with **CLASS D PATCHES,** of the type and thickness specified. All pavement patching required as a result of this line item shall be completed no more than 72 hours after the underground work is completed.

The location and re-connection of all existing sewer services shall be the responsibility of the Contractor and shall be included in the cost of this line item.

End treatments, pipe tees, and elbows shall be included in the cost of the pipe.

Removal and replacement of unsuitable material below plan bedding grade shall be paid for in accordance with Article 109.04 of the Standard Specifications

SANITARY SEWERS

Work shall be in accordance to Section 550 of the Standard Specifications except for the following:

The Owner shall provide T.V. reports, if available.

Polyvinyl Pipe (PVC) Sewer Pipe Joints shall be solvent welded joints per ASTM D 2855 or flexible elastomeric seals per ASTM D 3212.

Once all underground work has been completed, the Contractor shall patch the areas with **CLASS D PATCHES,** of the type and thickness specified. All pavement patching required as a result of this line item shall be completed no more than 72 hours after the underground work is completed.

The location and re-connection of all existing sewer services shall be the responsibility of the Contractor and shall be included in the cost of this line item.

End treatments, pipe tees, and elbows shall be included in the cost of the pipe.

Removal and replacement of unsuitable material below plan bedding grade shall be paid for in accordance with Article 109.04 of the Standard Specifications

This work shall be paid for at the contract unit price per foot for **SANITARY SEWERS,** of the class, type, and diameter specified and of the kind of material when specified.

WATER MAIN

Revise the first paragraph Article 561.02 of the Standard Specifications to read:

Materials. Trenched water mains shall be Class 52 Ductile Iron pipe with push-on joints, and shall conform to Specification AWWA-C151. All joints within casings shall be restrained, using Griffin Snap-Lok, US Pipe TR Flex or approved equal. Mechanical joints shall be used at all tees, crosses, and other fittings at locations shown on the Plans, and shall be installed strictly in accordance with the manufacturer's instructions.

Horizontal directional drilled water main shall be Class 54 restrained joint Mechanical joints shall be used at all tees, crosses, and other fittings at locations shown on the Plans, and shall be installed strictly in accordance with the manufacturer's instructions. **Substitution of this material shall not be permitted**. All horizontal directional drilled water main shall be double wrapped with polyethylene encasement.

Water main shall be installed in accordance with Section 561 of the Standard Specifications. Excavation, backfilling, installation, and separation of water mains shall be in accordance with Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois. The requirements of the Illinois Department of Public Health shall govern the horizontal and vertical separation of water mains from sewers.

All chlorination or flushing taps shall be a minimum two (2) inch diameter. Taps shall be provided by the contractor and be included in the cost of the water main installation.

Add the following to the first paragraph Article 561.03 of the Standard Specifications:

Any existing valves or water services that are to be abandoned due to the installation of the new water main shall have the box extensions removed and the surrounding area patched or landscaped as the case may be.

Tees installed on the new water main shall have mechanical joint plugs installed for testing purposes. All such plugs shall be removed and salvaged by the contractor after the new water main has been successfully tested and chlorinated. This work shall be considered included to the cost of **WATER MAIN** of the diameter specified.

Delete the second paragraph of Article 561.03(b) of the Standard Specifications.

Revise the first paragraph Article 561.04 of the Standard Specifications to read:

Method of Measurement. The water main will be measured for payment in place in feet along the centerline of the pipe with no deductions made for valves, tees, bends, and crosses. Tees, bends, crosses, and thrust blocking shall not be measured for payment separately, but shall be considered included to the cost of water main of the diameter specified.

Revise the first paragraph Article 561.05 of the Standard Specifications to read:

Basis of Payment. This work will be paid for at the contract unit price per foot for **WATER MAIN** of the material, joint type, installation method and diameter specified. This price will include the cost of installation of a new corporation stop and 45° brass "L" for each service being connected to the new main as shown on the plans or as directed by the Engineer, all pipe, fittings, tees, bends, beveled pipe, reducers, joint materials, the hydrostatic tests, all excavation (except excavation in rock), backfilling, thrust blocking (concrete), pipe bedding, and all appurtenances necessary to construct the water main.

The price shall include the reconnection of all short side services where no new copper is needed to connect to the new water main.

Pavement removal and replacement shall be measured and paid for separately.

All costs incurred to abandon the valves and water services shall be included in the cost of installing the new water main.

All new water mains and services shall be inspected with leak detection equipment immediately after installation of water main and one year after the completion of work.

The Contractor shall make provisions to hire a qualified contractor to verify leaks identified by the City. No additional compensation shall be provided but instead shall be considered included in the contract.

De-chlorination of water discharged from the new water main shall follow criteria established by the Environmental Protection Agency (EPA). No additional compensation shall be given to perform this work, but instead, this work shall be included in the cost of the contract.

WATER SERVICE LINE

Revise Article 562.01 of the Standard Specifications to read:

"This work shall consist of replacing water service lines as shown on the plans. The diameters are given to the best of the City's knowledge for bidding purposes. It is the contractor's responsibility to determine the actual diameter. No additional compensation shall be given for varying diameters of water service lines."

Add the following to Article 562.02 of the Standard Specifications:

"The existing water service line shall be replaced with Type K copper pipe."

Add the following after the third paragraph of Article 562.03 of the Standard Specifications:

"All "far side" water services shall be jacked or augured. Open cut installation shall only be permitted at the direction of the Engineer. If the existing "far side" service is copper, it shall be connected to the new water main without being replaced. Compression couplings shall be permitted."

Add the following after the first paragraph of Article 562.05 of the Standard Specifications:

"This price shall include the cost of all materials and all excavation, except excavation in rock. No additional compensation shall be given for water service diameters that differ from diameters shown on the Plans. This price shall include all labor, equipment, and materials necessary to "push" the service under the roadway and for disconnection of the existing service.

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Pavement patching will follow the requirements of Section 442 of the Standard Specification."

WATER SERVICE LINE

Revise Article 562.01 of the Standard Specifications to read:

"This work shall consist of replacing water service lines as shown on the plans. The diameters are given to the best of the City's knowledge for bidding purposes. It is the contractor's responsibility to determine the actual diameter. No additional compensation shall be given for varying diameters of water service lines."

Add the following to Article 562.02 of the Standard Specifications:

"The existing water service line shall be replaced with Type K copper pipe."

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"All "far side" water services shall be jacked or augured. Open cut installation shall only be permitted at the direction of the Engineer. If the existing "far side" service is copper, it shall be connected to the new water main without being replaced. Compression couplings shall be permitted."

Add the following after the first paragraph of Article 562.05 of the Standard Specifications:

"This price shall include the cost of all materials and all excavation, except excavation in rock. No additional compensation shall be given for water service diameters that differ from diameters shown on the Plans. This price shall include all labor, equipment, and materials necessary to "push" the service under the roadway and for disconnection of the existing service.

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Pavement patching will follow the requirements of Section 442 of the Standard Specification."

ADJUSTING SANITARY SEWERS AND WATER SERVICE LINES

Work shall be accordance to Section 563 of the Standard Specifications except for the following:

a) Storm and sanitary sewer services shall be SDR-26.

b) Existing "Y" or "T" connection on the sewer main shall be replaced and connected to the existing sewer main by means of the specified grade of PVC pipe and compression couplings.

CATCH BASIN, MANHOLE, INLET, DRAINAGE STRUCTURE, AND VALVE VAULT CONSTRUCTION, ADJUSTMENT, AND RECONSTRUCTION

Delete Note 2 of Article 602.02 of the Standard Specification.

Revise Note 3 of Article 602.02 of the Standard Specification to read:

"Multi-Purpose Rubber Adjustment Riser Rings shall be used (Metal adjustment rings shall NOT be permitted). The rubber adjustment rings shall conform to ASTM Standards (C-642-90, D-2240, D412-87, D 575, D 395, C672-91, C531-85, and D573-88) or approved equal. Beveled rings shall be used in cases were the surface slopes differ in elevation. **Brick shims are not permitted**. **The contractor shall use butyl mastic between the frame and rings**. **Roofing tar or other products other than butyl mastic shall not be permitted. If it is determined that unsuitable materials were used for adjustments, the Contractor shall remove all material and re-adjust the structure to the Engineer's**

satisfaction. Failure to correct the situation shall result in withholding payment for the adjustment of the structure.

When the Plans indicate the adjustment of an existing sanitary manhole, the adjustment shall include the reinstallation of the existing chimney seal or the installation of a new chimney seal, as the case may be."

Add the following after the first paragraph of Article 602.07 of the Standard Specifications:

"The Contractor shall provide and install a precast reinforced concrete sanitary manhole with a one piece integral base and bench section. All pipe connections are to be made with a pre-installed synthetic rubber sleeve with stainless steel clamps. All joints between barrel sections, rubber riser rings, and frames shall be sealed with a flexible butyl gasket material, such as "E-Z Stick", "Ram Neck" or approved equal. In addition, the casting, risers, and cone section shall be sealed by the use of an internal chimney seal conforming to ASTM C-923 or approved equal. The sanitary manhole detail as shown on the plans shall be included under this Special Provision by reference."

Add the following after the second paragraph of Article 602.11(c) of the Standard Specifications:

"The Contractor shall postpone placing the final surface course for 48 hours in order to inspect all adjusted structures which are within the paved areas. If it is determined that the structure is incorrectly adjusted, the Contractor shall make the necessary repairs to the structure prior to the placement of the final surface. No additional compensation shall be made for this item, but instead, shall be considered included in the cost of this item.

The salvaged castings shall be stored at a convenient location on the job site for pick up by the Municipality."

Add the following after the second paragraph of Article 602.13 of the Standard Specifications:

"The Contractor shall verify all invert elevations and pipe configurations in manholes prior to ordering the new structure. All pipe connections to the precast reinforced concrete sanitary manhole structure shall be made with a pre-installed synthetic rubber sleeve. No exceptions shall be made because of the Contractor's failure to complete adequate investigation before ordering materials. The Engineer shall make every reasonable attempt to confirm the configurations of the delivered manholes before the existing structure is removed. The failure of the Engineer, or his representative, to identify improperly manufactured structures does not alleviate the Contractor of his responsibility in this regard. Failure to install manholes to these specifications will result in non-payment of the structure until the structure is replaced to the satisfaction of the Engineer.

Where a new structure is replacing an existing structure of similar dimensions, all pipe connections shall be reconnected to the new structure with pipe of the same size.

The cost of reconnecting all existing inflow and outfall pipes to a distance of 3' outside the outer wall surface of the structure, including all materials and labor, shall be incidental to the contract unit cost of installation of the specified structure. Any pipe replacement beyond this 3' dimension shall be paid for (only if determined as necessary by the Engineer on the basis of condition) at the contract unit price of the pipe.

Pipe material for storm sewer structures shall be PVC SDR-26, if the existing pipe is vitrified clay pipe. Pipe replacement of all other types shall be identical to that of the existing pipe. Pipe material for sanitary sewer structures shall be PVC SDR-26 when the existing line is vitrified clay pipe. **NON-SHEAR**

TYPE Fernco, Mission or approved equal couplings shall be used when connecting pipe of different materials."

By-Pass pumping shall be required in cases where flow is heavy and cannot be interrupted. No additional compensation shall be made but is to be considered included in the cost of these items.

The removal of the existing structure shall be incidental to this item and no additional compensation shall be allowed

The salvaged castings shall be stored at a convenient location on the job site for pick up by the City of Wheaton.

Revise the first paragraph of Article 602.16 of the Standard Specifications to read:

"Basis of Payment. When new construction is specified, this work will be paid for at the contract unit price per each for **CATCH BASINS, MANHOLES, SANITARY MANHOLES WITH CHIMNEY SEALS, INLETS, DRAINAGE STRUCTURES,** or **VALVE VAULTS**, of the type or type and diameter specified, and with the type of frame and grate or frame and lid specified or median inlet number specified.

For bidding purposes, the manhole and sanitary manhole line items have specified depths less than or equal to eight feet (<8') and greater than eight feet (>8').

When adjustment or reconstruction is specified and existing frames, grates, and lids are to be used, this work will be paid for at the contract unit price per each for **CATCH BASINS TO BE ADJUSTED, CATCH BASINS TO BE RECONSTRUCTED, MANHOLES TO BE ADJUSTED, MANHOLES TO BE RECONSTRUCTED, SANITARY MANHOLES TO BE ADJUSTED** with chimney seals; **SANITARY MANHOLES TO BE RECONSTRUCTED** with chimney seals; **INLETS TO BE ADJUSTED, INLETS TO BE RECONSTRUCTED, VALVE VAULTS TO BE ADJUSTED, or VALVE VAULTS TO BE RECONSTRUCTED.**

When adjustment or reconstruction is specified and new frames, grates, lids or median inlets are to be used, this work will be paid for at the contract unit price per each for **CATCH BASINS TO BE ADJUSTED WITH NEW FRAME AND GRATE** or **LID**, of the type specified, or **WITH NEW MEDIAN INLET**, of the number specified; **CATCH BASINS TO BE RECONSTRUCTED WITH NEW FRAME AND GRATE** or **LID** of the type specified, or **WITH NEW MEDIAN INLET** of the number specified; **MANHOLES TO BE ADJUSTED WITH NEW FRAME AND GRATE** or **LID** of the type specified, or **WITH NEW MEDIAN INLET** of the number specified; **MANHOLES TO BE RECONSTRUCTED WITH NEW FRAME AND GRATE or LID** of the type specified, or **WITH NEW MEDIAN INLET** of the number specified; **SANITARY MANHOLES TO BE ADJUSTED WITH NEW FRAME AND GRATE** or **LID** of the type specified and chimney seal, **SANITARY MANHOLES TO BE RECONSTRUCTED WITH NEW FRAME AND GRATE or LID** of the type specified and chimney seal; **INLETS TO BE ADJUSTED WITH NEW FRAME AND GRATE** or **LID** of the type specified, or **WITH NEW MEDIAN INLET** of the number specified; **INLETS TO BE RECONSTRUCTED WITH NEW FRAME AND GRATE** or LID of the type specified, or **WITH NEW MEDIAN INLET** of the number specified; **VALVE VAULTS TO BE ADJUSTED WITH NEW FRAME AND CLOSED LID** of the type specified; or **VALVE VAULTS TO BE RECONSTRUCTED WITH NEW FRAME AND CLOSED LID** of the type specified.

Which price shall include all costs for setting or resetting the frame, grate, or lid, or for installing or reinstalling the chimney seal as the case may be, and for all pavement patching. Setting of all frames shall be performed as shown on the plans.**"**

FILLING VALVE VAULTS WITH VALVE BOX

Work shall be accordance to Section 605 of the Standard Specifications except:

The first paragraph of Article 605.04 will be revised to include the installation of a new valve box on the existing valve prior to the backfilling the vault.

The third paragraph of Article 605.06 will be revised to include **FILLING VALVE VAULTS WITH VALVE BOX** as a listed pay item. Which price shall include the supply and installation of a new valve box.

Disposal of all materials resulting from the filling or removing existing valve vaults shall be considered included in the cost of the item.

COMBINATION CONCRETE CURB AND GUTTER

Add the following after the second paragraph of Article 606.05 of the Standard Specifications:

"Line and grade for the new curb and gutter shall be provided by the Engineer with a minimum three days notice for staking. Any aggregate required under the proposed curb and gutter to bring it to the proposed elevation shall be considered included in the cost of this item."

Add the following after the first paragraph of Article 606.06 of the Standard Specifications:

"The existing condition of the pavement being rehabilitated necessitates all construction trucks maintain a reasonable distance from the curb and gutter excavation when unloading material into concrete forms or slip form equipment during the placement operations. The material supplier or Contractor shall provide additional trough sections when concrete is delivered to the site. **Any damage caused to the existing pavement by construction vehicles shall be repaired at the Contractors expense."**

Add the following after the first paragraph of Article 606.13 of the Standard Specifications:

"Only approved material shall be permitted as backfill behind the new structure. No unsuitable material including sod, leaves, asphalt or concrete debris, or aggregate of any kind shall be used as backfill. The Engineer shall approve all backfill material before it is placed. Prior to placing topsoil or sod, the backfill material shall be compacted to minimize settlement behind the curb."

NON-SPECIAL WASTE DISPOSAL

Revise Article 669.01 of the Standard Specifications to read:

> "The Contractor shall be provided with any geotechnical reports pertaining to material testing in compliance with LPC 662 and LPC 663. The Contractor shall at their own expense, have an independent company verify soil analysis results associated with disposal of materials. It shall be the Contractor's responsibility to dispose of any unsuitable materials in compliance with State of Illinois regulations. The contractor shall provide in writing to the Engineer location and verification of where materials shall be disposed of. "

Add the following paragraph after Article 669.01 of the Standard Specifications:

General - The City has retained a geotechnical consultant to perform material testing for CCDD Compliance. Results are available to the Contractor upon written request to the Engineer. The contractor shall retain their own independent testing company if a dispute with the test result occurs. No additional compensation shall be given to the contractor.

Add the following after the second paragraph of Article 669.19 of the Standard Specifications:

"Payment for disposal of non-special waste shall not exceed planned quantity. Any additional payment for disposal of material beyond planned quantity shall be the responsibility of the contractor."

TRAFFIC CONTROL AND PROTECTION

Add the following after the fifth paragraph of Article 701.04 of the Standard Specifications.

"The Contractor shall insure that all traffic control devices installed by him are operational, functional, and effective 24-hours a day, including Sundays and Holidays.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

The Contractor shall maintain at least one lane of traffic at all times on two lane roads and at least one lane in each direction on four or more lane roads, during the construction of this project. Two flaggers will be required at all times for each separate operation where two-way traffic is maintained over one lane of pavement. The Contractor shall also maintain entrances, side roads, and pedestrian pathways along the proposed improvement. Interference with traffic and pedestrian movements and inconvenience to owners of abutting property and the public shall be kept to a minimum.

Delays to the Contractor caused by complying with these requirements shall be included in the cost of **TRAFFIC CONTROL AND PROTECTION**, and no additional compensation shall be allowed."

Add the following to the third paragraph of Article 701.18(b) in the Standard Specifications.

"A sufficient quantity of replacement devices based on vulnerability to damage shall be readily available to meet this requirement."

Revise the third paragraph of Article 701.18(b) of the Standard Specifications to read:

"In an emergency as determined by the Engineer, the Municipality reserves the right to immediately affix temporary repairs, placement of barricades, or provide temporary access at driveways, trench crossing, or pavement rehabilitation areas by Municipality personnel at time and one-half pay rate plus any rental and/or material costs incurred and the Contractor agrees that in such event, the Municipality may charge such costs that may be incurred against the Contractor or his surety."

Revise Article 701.19 of the Standard Specifications to read:

Method of Measurement: **WORK ZONE TRAFFIC CONTROL AND PROTECTION** will be measured on a lump sum basis.

Revise Article 701.20 of the Standard Specifications to read:

Basis of Payment: This work shall be paid for at the contract lump sum price for **TRAFFIC CONTROL AND PROTECTION**, which price shall be payment in full for all labor, materials, transportation, handling, and incidentals necessary to furnish, install, maintain, replace, relocate, and remove all traffic control devices indicated in the plans and specifications. The salvage value of the materials removed shall be reflected in the bid price for this item.

PAINT PAVEMENT MARKING – LINE
PAINT PAVEMENT MARKING – LETTERS AND SYMBOLS

Work shall be accordance to Article 780.04 except all striping under this line item shall be completed within twenty-four (24) hours after all paving is complete

In the event additional time is required, the Contractor shall submit a written request to the Engineer for consideration of delaying striping. Striping shall be applied no later than 5 working days after the initial placement of the final surface.

Failure to stripe within 5 working days shall result in liquidated damages of $500.00 per day.

DETECTOR LOOP

Work shall be in accordance to Section 886 of the Standard Specifications except for the following:

The intersection of Adare Drive and State Route 38 (Roosevelt Road):

The following Traffic Signal Special Provisions and the "District 1 Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction."

The intent of this Special Provision is to prescribe the materials and construction methods commonly used to replace traffic signal detector loops and replace magnetic signal detectors with detector loops during roadway resurfacing, grinding and patching operations. Loop detector replacement will not require the transfer of traffic signal maintenance from the District Electrical Maintenance Contractor to this contract's electrical contractor. Replacement of magnetic detector will require wiring revisions inside the control cabinet and therefore the transfer of maintenance will be required. All material furnished shall be new. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer.

The work to be provided under this contract consists of furnishing and installing all traffic signal work as specified on the Plans and as specified herein in a manner acceptable and approved by the Engineer.

Notification of Intend to Work.
Contracts such as pavement grinding or patching which result in the destruction of traffic signal detection require a notification of intent to work and an inspection. A minimum of seven (7) working days prior to the detection removal, the Contractor shall notify the:

- Traffic Signal Maintenance and Operations Engineer at (847)705-4424
- IDOT Electrical Maintenance Contractor at (773) 287-7600

at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection.

Failure to provide proper notification may require the District's Electrical Maintenance Contractor to be called to investigate complaints of inadequate traffic signal timing. All costs associated with these expenses will be paid for by the Contractor at no additional expense to the Department according to Section 109 of the "Standard Specifications."

Acceptance of Material.
The Contractor shall provide:

1. All material approval requests shall be submitted a minimum of seven (7) days prior to the delivery of equipment to the job site, or within 30 consecutive calendar days after the contract is awarded, or within 15 consecutive calendar days after the preconstruction meeting, whichever is first.
2. Seven (7) copies of a letter listing the manufacturer's name and model numbers of the proposed equipment shall be supplied. The letter will be reviewed by the Traffic Design Engineer to determine whether the equipment to be used is approved. The letters will be stamped as approved or not approved accordingly and returned to the Contractor.
3. One (1) copy of material catalog cuts.
4. The contract number, permit number or intersection location must be on each sheet of the letter and material catalog cuts as required in items 2 and 3.

Inspection of Construction.
When the road is open to traffic, except as otherwise provided in Section 801 and 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 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.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on." If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. If this work is not completed in time, the Department reserves the right to have the work completed by others at the Contractor's expense.

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 will be subject to removal and disposal at the Contractor's expense.

Restoration of Work Area.
Restoration of the traffic signal work area shall be incidental to the related pay item such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced as shown in the plans or in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded.

Removal, Disposal and Salvage of Existing Traffic Signal Equipment.

This item shall be incidental to this contract. All material and equipment removed shall become the property of the Contractor and disposed of by the Contractor outside the State's right-of-way. No additional compensation shall be provided to the Contractor for removal, disposal or salvage expense for the work in this contract.

DETECTOR LOOP REPLACEMENT.
This work shall consist of replacing existing detector loops which are destroyed during grinding, resurfacing, or patching operations.

If damage to the detector loop is unavoidable, replacement of the existing detection system will be necessary. This work shall be completed by an approved Electrical Contractor as directed by the Engineer.

Replacement of the loops shall be accomplished in the following manner: The Engineer shall mark the location of the replacement loops. The Traffic Signal Maintenance and Operations Engineer shall be called to approve loop locations prior to the cutting of the pavement. The Contractor may reuse the existing conduit (duct) located between the existing handhole and the pavement if it hasn't been damaged. All burrs shall be removed from the edges of the existing conduit which may cause damage to the new detector loop during installation. If the existing conduit is damaged beyond repair, or if it cannot be located, or if additional conduits are required to provide one lead-in duct for each proposed loop; the Contractor shall be required to drill through the existing pavement into the appropriate handhole, and install 25 mm (1") unit duct conduit. This work and the required materials shall not be paid for separately but shall be included in the pay item Detector Loop Replacement. Upon establishment of the duct, the loop may be cut, installed, sealed and spliced to the twisted-shielded controller cable in the handhole.

Detector loop measurements shall include the saw-cut and the length of the loop lead-in leading to the edge of pavement. Unit duct, splicing, trench and backfill, and drilling of pavement or handholes shall be incidental to detector loop quantities.

All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement or the curb shall be cut with a 6.3 mm (1/4") deep x 100 mm (4") saw-cut to mark location of each loop lead-in.

A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Traffic Signal Maintenance and Operations Engineer (847)705-4424 to inspect and approve the layout.

Loop detectors shall be installed according to the requirements of the "District 1 Standard Traffic Signal Design Details." Saw-cuts from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a water proof tag, from an approved vender, secured to each wire with nylon ties. The lead-in wire, including all necessary connections for proper operation, from the edge of pavement to the handhole, shall be incidental to the price of the detector loop.

Loop sealant shall be a two-component thixotropic chemically cured polyurethane. The sealant shall be installed 3 mm (1/8") below the pavement surface, if installed above the surface the overlap shall be removed immediately.

Round loop(s) 1.8 m (six foot) diameter may be substituted for 1.8 m (six foot) by 1.8 m (six foot) square loop(s) and shall be paid for as 7.2 m (24 feet) of detector loop.

Resistance to ground shall be a minimum of 100 megohms under any conditions of weather or moisture.

Heat shrink splices shall be used according to the "District 1 Standard Traffic Signal Design Details."

Drilling handholes, sawing the pavement, furnishing and installing unit-duct to the appropriate handhole, cable splicing to provide a fully operable detector loop, testing and all trench and backfill shall be included in this item.

Detector loop replacement shall be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire in the slot.

Basis of Payment.
Detector Loop Replacement shall be paid for at the contract unit price per foot (meter) of DETECTOR LOOP REPLACEMENT.

MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.
This work shall consist of the removal of existing magnetic detectors, magnetic detector lead-in cable and magnetic detection amplifiers and related control equipment wiring, installation of detector lead-in cable, detector loops, detector amplifiers and related equipment wiring. The detector loop, cable, and amplifier shall be installed according to the applicable portions of the "Standard Specifications" and the applicable portions of the Special Provision for "Detector Loop Replacement." All drilling of handholes, furnishing and installing unit duct, cable splicing, trench and backfill, removal of equipment, and pulling cable from conduit shall be included in this item.

Basis of Payment.
Magnetic Detector Removal and Detector Loop Installation shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I, per each for INDUCTIVE LOOP DETECTOR, and foot (meter) for ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
WATER AND SEWER MAIN CONSTRUCTION

Effective: 1/1/10

Water and Sewer Main Construction shall conform to "*The Standard Specifications for Water and Sewer Main Construction in Illinois*", adopted July, 2014, Edition #7 or most current version (Hereinafter referred to as Standard Specification for Water and Sewer Main Construction)

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
PRECONSTRUCTION MEETING

Effective: 1/1/10
Revised: 1/21/13

A preconstruction conference shall be held between the Contractor, the Engineer and various other representatives before construction starts, to discuss scheduling, contracts, handling of materials, payments, and any other information relative to the work.

The Contractor shall provide a schedule to the Engineer for review and approval at the time of the meeting.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
SEEDING BEHIND CURB

Effective: 1/1/10
Revised: 1/21/13

Description. This work shall consist of the placement of topsoil and seed in the parkway areas in which the area between the curb and gutter is 1 foot or less in width and as directed by the Engineer. The depth of the area varies but shall not exceed 1 foot in depth.

General. The Contractor shall remove any rocks, concrete or other debris from behind the curb and gutter prior to placement of topsoil.

The Contractor shall place topsoil in the gap between new concrete curb and gutter and the disturbed parkway soil in areas where the gap is 1 foot or less. The topsoil shall be placed in a way that fills the gap from the bottom of the excavation to the top of the curb.

The newly graded areas shall be fertilized and seeded with the mix as shown on the plans.

The Contractor shall apply water to all seeded areas until germination over 75% of the area has occurred. The rate of application shall be determined by the Contractor to ensure adequate germination for growth.

Method of Measurement. This work will be measured for payment in place as lineal feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for **SEEDING BEHIND CURB** which price shall include the removal and disposal of debris, preparation, topsoil placement, seed, fertilizer nutrients, labor, and watering necessary to complete the work as specified.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
EXPLORATORY EXCAVATION

Effective: 1/1/10

Description. This work shall consist of the Contractor making excavations to determine the exact horizontal and vertical locations for various underground utilities as directed by the engineer. It shall include any necessary bracing and shoring as well as backfill and compaction.

Basis of Payment. This work shall be paid for at the contract unit price each for **EXPLORATORY EXCAVATION**.

Which price shall be payment in full for all machine sawing, excavation, trench backfill, materials, labor, trench shoring and any equipment necessary to perform the work.

Backfill material shall either be native materials in locations where there will be no structures built upon the fill, or aggregate trench backfill in areas upon which will be constructed pavements or concrete.

Permanent pavement patching shall be paid for separately.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
COLD PATCH

Effective: 2/7/13

Description. The contractor shall provide cold bituminous asphalt material, COLD PATCH, for the use in all water and sewer trenches or as directed by the engineer. The depth of material placed shall be a minimum of 3 inches but not to exceed 6 inches or as directed by the Engineer. The Engineer shall specify the location for placement of COLD PATCH material.

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Basis of Payment. This work shall be paid for per ton as **COLD PATCH**, which price shall include all materials, labor and equipment necessary to perform this work.

This line item shall include the cost to remove and dispose of all cold patch material placed.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
POLYETHYLENE ENCASEMENT

Effective: 3/2/12

Description. This work shall consist of installing polyethylene encasement on all ductile iron pipe and underground water main appurtenances.

General. All ductile iron waterman and fittings shall be encased in polyethylene wrap and secured with polyethylene tape.

Materials: The materials shall conform to AWWA Standard Specifications for polyethylene encasement for gray and ductile cast-iron piping for water and other liquids, ANSI/AWWA C105/A21.5.

The polyethylene encasement shall be Class C, black or clear, 8 mils. thick, linear low density polyethylene wrap, secured with polyethylene tape.

Horizontal Directional Drilled water main shall have polyethylene encasement applied as per ANSI/AWWA C105/A21.5 and Ductile Iron Pipe Research Association's "Horizontal Directional Drilling with Ductile Iron Pipe".

Method of Measurement. This work will be measured for payment in place in feet. Where 2 or more layers of polyethylene encasement are specified, each layer shall be measured separately.

Basis of Payment. This work will be paid for at the contract unit price per foot for **POLYETHYLENE ENCASEMENT**. No additional compensation shall be given for the difference in cost between varying diameters of polyethylene encasement.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
STEEL CASING PIPE

Effective: 1/1/11

Description. This work shall consist of installing casing pipe as specified on the plan or as directed by the Engineer to protect the water main crossing below existing storm or sanitary pipes where adequate separation is not achieved.

General. Spacers shall be installed on all pipe within the casing using Smith-Blair Stainless Steel casing spacers or approved equal.

All ductile iron waterman and fittings shall be encased in polyethylene wrap and secured with polyethylene tape.

Once installation of the casing pipe is complete, the Contractor shall provide insulation between the casing pipe and the new ductile iron water main. Insulation shall consist of blown torpedo sand or materials approved by the manufacturer of the pipe. The casing shall be sealed at both ends.

Materials: The Casing Pipe shall consist of new smooth steel pipe that conforms to ASTM A-139, Grade B and shall have minimum yield strength of 35,000 P.S.I.

Method of Measurement. This work will be measured for payment in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for **STEEL CASING PIPE,** of the specified diameter, which price shall be considered payment in full for all labor, equipment, materials, and backfilling necessary to complete the work. Insulation provided for the casing pipe, casing spacers, and all necessary hardware to install this pipe shall be considered included in this line item.

Water main pipe shall be measured and paid for separately as **WATER MAIN, DIP, RESTRAINED JOINTS, ENCASED, 8”**. Pavement patching shall be measured and paid for separately as **CLASS D PATCHING** of the specified class, type and thickness.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
PRESSURE CONNECTION

Effective: 1/1/10

Description. This work shall consist of installing pressure tap valves and tees of the sizes and dimensions specified. The installations shall be according to the applicable sections of the current version of the Standard Specifications for Water and Sewer Main Construction in Illinois and to the Plan Details. The Engineer and City of Wheaton Water Department shall inspect the pressure taps.

General. The Contractor shall supply the valves, tap machine, and pressure tap tees to complete the work as required. Each pressure tap valve shall be installed with a valve box and cover.

Materials. The pressure tap valve and tee shall conform to the following or approved equal:

Pressure Tap Valve and Tee.

a) Mueller A2360-16 Resilient Wedge Valve
or
b) American Flow Control Series 2500 Flanged X Mechanical Joint Resilient Wedge Valve

Tapping Sleeve.

a) Smith Blair 665 Stainless Steel Taping Sleeve

Method of Measurement. This work will be measured for payment as each. Each installed pressure tap and valve will be considered one each.

Basis of Payment. This work will be paid for at the contract unit price per each for **PRESSURE CONNECTION,** of the specified size, and shall include all materials, labor and equipment necessary to complete the work as described.

Each pressure tap valve shall be installed with a valve box and cover which shall be considered included in the cost of each valve.

All excavation and trench backfill required for the pressure tap and valve shall be included in the price of this item.

Pavement removal and replacement shall be measured and paid for separately.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
WATER VALVES

Effective: 1/1/10

Description. This work shall consist of the installation of valves that conform to the applicable sections of the current version of the Standard Specifications for Water and Sewer Main Construction in Illinois, and to the plan details. Each valve shall be installed with a valve box cover and rubber valve setter.

General. The Contractor shall supply and install all valves as shown on the plans.

Materials. The mainline valves shall be gate valves and shall conform to the following or approved equal.

a) Mueller A-2360-20 Resilient Wedge Valve with Mechanical Joint Ends
or
b) American Flow Control Series 2500 Resilient Wedge Valve.

All valve boxes shall be 664-S Series Tyler Screw Type Cast Iron 2 piece valve boxes or approved equal.

Plastic valve boxes, plastic valve box extensions/risers, or slip in valve box risers are not acceptable.

Method of Measurement. This work will be measured for payment as each. Each installed valve and valve box cover and rubber valve setter will be considered one each.

Basis of Payment. This work will be paid for at the contract unit price per each for **WATER VALVES,** of the specified size, and shall include all materials, labor and equipment necessary to complete the work as described.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
WATER SERVICE COMPLETE

Effective: 1/1/10

Description. This work shall consist of the installation of a complete water service assembly from an existing or new water main to, and including the curb box.

General. This work shall include spoil removal, and all fittings necessary to perform this work. No additional compensation shall be given for varying diameter services, but instead, shall be considered included in the contract.

The water service line shall be installed according to Article 562.03 and the City of Wheaton Special Provision **WATER SERVICE LINE**.

Materials. The water service complete assembly shall conform to the following or approved equals.

Corporation Cock
a) Mueller 300 Ball Corporation Valve B-25000N
   Or
b) Ford Corporation Stops FB600-Size-NL

Corporation Cock Quarter and Eighth Bends – ¾", 1", 1 ¼", 1 ½" and 2"
a) Mueller brass with compression ends and swivel nut, flare nut. Non-swivel accepted on sizes where others aren't made. Mueller H-15075N, H-15076N
   Or
b) Ford brass with compression ends with swivel nut, flare nut. Non-swivel accepted on sizes where others aren't made. Ford LA04-Size-NL, L04-Size-NL.

Curb Stop
a) Mueller 300 Ball Curb Valve B-25155N
   Or
b) Ford Ball Valve Curb Stop B44-size M-NL

Curb Box
a) Mueller H-10300 Curb Box with Minneapolis Pattern Base

Service Saddles (for diameter sizes over 1")
a) Smith-Blair Model 317 Epoxy Coated Ductile Iron with Double Stainless Steel Strap

The water service line shall be installed according to Article 562.02 and the City of Wheaton Special Provision for **WATER SERVICE LINE**.

Method of Measurement. This work will be measured for payment as each. Each installed corporation cock, corporation cock quarter and eighth bends, curb stop, curb box and service saddles, will be considered one each.

The water service line will be measured for payment according to Article 562.04.

Basis of Payment. This work will be paid for at the contract unit price per each for **WATER SERVICE COMPLETE** which shall include all labor, equipment, and materials necessary to install the service as specified.

Excavation and spoil removal shall not be paid for separately but shall be considered included in the cost of this item. No additional compensation shall be given for varying diameter services, but instead, shall be considered included in the contract.

Copper water service line will be paid for according to Article 562.05.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
FIRE HYDRANTS

Effective: 2/22/11

Description. This work shall consist of the installation of new fire hydrants and auxiliary valves to be connected to the existing water main or to a new water main.

General. Work shall be performed according to applicable sections of the current version of the Standard Specifications for Sewer & Water Main Construction in Illinois and the City of Wheaton Detail as shown on the plans.

Materials. The hydrant shall be a Mueller Centurion A-421 or approved equal, 4 ½" valve opening with 6" flange by mechanical joint resilient wedge gate type auxiliary valve. The hydrant shall be of a break flange construction and placed in the locations as shown on the plans. The Fire Hydrant shall be factory painted safety yellow.

The auxiliary valve shall be a Mueller #A-2360-19 resilient wedge series or approved equal. The valve box shall be a Tyler 664-S or approved equal.

Construction Requirements. Hydrants shall not be closer than 3' to the back of curb, no closer than 5' to the nearest edge of a drive approach, no closer than 18" to any sidewalk. Fire hydrants shall be plumb and set so that the lowest hose connection is a minimum of 18" and maximum 24” above the surrounding finished grade. A minimum of 1/4 cubic yard of coarse washed stone shall be placed at and around the base to a level 6” above the drain outlets to permit the draining of the hydrant barrel.
Final adjustment of the Fire Hydrant shall be considered included in the cost of this item. No additional compensation shall be given for fittings or extensions that are necessary to avoid utility conflicts or connect to the existing or new water main.

Method of Measurement. This work will be measured for payment as each. Each installed fire hydrant and auxiliary valve will be considered one each.

Basis of Payment. This work shall be paid for at the contact unit price per each for **FIRE HYDRANTS** which shall include all labor, equipment, and materials necessary to install the hydrant as specified.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
FIRE HYDRANTS TO BE REMOVED

Effective: 1/1/10

Description. This work shall consist of the removal of fire hydrants and auxiliary valves on abandoned water main.

Construction Requirements. After installation and testing of the proposed water main, hydrants on the existing water main to be abandoned shall be removed. The existing hydrant and auxiliary valve shall be removed as a one-piece unit and set aside for pick up by City crews. All excavation necessary shall only be sufficient to remove the existing hydrant.

Method of Measurement. This work will be measured for payment as each. Each removed fire hydrant and auxiliary valve will be considered one each.

Basis of Payment. This work will be paid for at the contract unit price per each for **FIRE HYDRANTS TO BE REMOVED**, which shall include all labor, materials, and equipment necessary to affect each hydrant removal.

Trench backfill necessary to fill the resulting excavation shall not be paid for separately but shall be considered included in the cost of this item.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
CUT AND INSTALL END CAPS

Effective: 3/2/12

Description. This work shall consist of the removal of existing valves and/or pipe on water main and the installation of an end cap.

Materials. Material shall be according to the following or approved equal.

End Caps for Class "A" pipe shall be Tyler Union Mechanical Joint Cap, with EBAA Iron Megalug mechanical joint restraint gland. End Caps for Class "B-C-D" pipe shall be Tyler Union MJ x PE Dual-Purpose Cutting-in Sleeve with Tyler Union Mechanical Joint Cap, with EBAA Iron Megalug mechanical joint restraint glands.

When the elimination of an existing tee or cross is shown on the plans, a length of pipe matching the diameter of the existing main shall be installed with two (2) long body Omni sleeves, Smith Blair #441 with stainless steel hardware or approved equals at the discretion of the Engineer. This work shall be performed in lieu of installing the number of end caps normally required.

Construction. The existing water main and appurtenances shall be removed as shown on the plans to accommodate the installation of an end cap. The end cap shall be blocked with concrete blocks against undisturbed earth. In addition, each cap shall be tied back to the water main with a stainless steel threaded rod to either a mechanical joint or a retaining gland and be encased in polyethylene wrap.

The Engineer shall determine the method to be used on the basis of existing conditions. Wood shims shall only be permitted when encased in Class SI Concrete. A brass plug shall be installed on the end cap.

All excavation shall be minimized to an extent sufficient to install the end cap.

Method of Measurement. Cut and install end cap will be measure for payment as each. Each installed end cap, concrete blocks, concrete, and retaining gland, or Omni sleeves and pipe section will be considered each.

Basis of Payment. This work will be paid for at the contract unit price per each for **CUT AND INSTALL END CAPS,** which shall include all materials, labor, and equipment as required. No allowance will be made for varying diameters of end caps.

Trench backfill and pavement removal and replacement will be measured and paid for separately.

City of Wheaton
Engineering Department

SPECIAL PROVISION
FOR
VALVE BOXES TO BE ADJUSTED

Effective: 1/1/10

Description. This item shall consist of the adjustment of existing valve boxes to the proposed surface grade as shown on the plans or as directed by the Engineer.

General. This work shall be performed in accordance with Article 603 of the Standard Specifications. In order to make the necessary adjustments, the Contractor may have to provide a screw type extension or riser section for the existing facility. It shall be the responsibility of the Contractor to ascertain the type of existing facility and the necessary extension piece required to perform the adjustment. The installation of the extension pieces or the proper manipulation of the existing screw-type devices shall be the only adjustment allowed, and the use of physical force to raise or lower the valve boxes shall not be permitted.

Materials. The following materials shall be used or approved equals:

Valve Box Extensions
a) Tyler #58 or #60 Screw-Type Extension

Adjustable Riser
a) Tyler #69 Screw-Type Adjustable Riser

Plastic valve boxes or plastic valve box extensions/risers are not permitted.

Method of Measurement. This work will be measured for payment as each. Each valve box adjusted including any extensions/riser sections needed, will be considered one each.

Basis of Payment. This item will be paid for at the contract unit price per each for **VALVE BOX TO BE ADJUSTED,** which price shall be considered full compensation for all labor, equipment, and materials necessary to perform the work to the satisfaction of the Engineer.

Pavement removal and Class SI concrete replacement required for this item shall not be paid for separately but shall be considered included in the cost of this item.

CERTIFICATION OF COMPLIANCE
2016 Road, Sewer, and Water Rehabilitation Program

The undersigned, being first duly sworn an oath, deposes and states that he/she has the authority to make this certification on behalf of the bidder for the product, commodity, or service and:

(A) The undersigned certifies that, pursuant to 720 ILCS Act 5, Article 33E of the Illinois Compiled Statutes, the bidder is not barred from bidding on this contract as a result of a conviction for the violation of State of Illinois laws prohibiting bid-rigging or bid-rotating.

(B) The undersigned certifies that, pursuant to 65 ILCS 5/11-42.1-1 of the Illinois Compiled Statutes, the bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue.

(C) The undersigned certifies that, pursuant to 30 ILCS 580/3, Section 3 the bidder deposes, states and certifies it will provide a drug free workplace by complying to the Illinois Drug Free Workplace Act.

(D) The undersigned certifies that, pursuant to 820 ILCS 130/1-12 of the Illinois Compiled Statutes, the bidder, when required, is in compliance to all requirements of the Prevailing Wage Act.

(E) The undersigned certifies that, pursuant to 30 ILCS 570/ Section 5 Article 2 of the Illinois Compiled Statutes, the bidder is in compliance to all requirements of the Employment of Illinois Workers on Public Works Act.

(F) The undersigned certifies that they agree to fulfill all Requirements, Specifications, Terms and Conditions.

(G) The undersigned certifies that they agree to fulfill all Contract Requirements.

(H) The undersigned certifies that they agree to present alternative Greener products/processes to the City for consideration in this work.

***Check One**:*

☐**There are no conflicts of interest**; and in the event that a conflict of interest is identified anytime during the duration of this award, or reasonable time thereafter, you, your firm, or your firm's ownership, management or staff will immediately notify the City of Wheaton in writing.

☐ **There is an affiliation or business relationship** between you, your management or staff, your firm, or your firm's ownership, and an employee, officer, or elected official of the City of Wheaton who makes recommendations to the City of Wheaton with respect to expenditures of money, employment, and elected or appointed positions. Provide any and all affiliations or business relationships that might cause a conflict of interest or any potential conflict of interest. Include the name of each City of Wheaton affiliate with whom you, your firm, or your firm's ownership, management or staff, has an affiliation or a business relationship.

This Business Firm is: (check one)

☐a Corporation ☐a Partnership ☐an Individual ☐an LLC

Firm Name:_____

Firm Address:_____

_____

Signature:_____

Print Name_____

Position:_____

Phone #:_____

Fax #: _____

e-mail address_____

Date signed:_____

Operational Contact for this work
Name: _____
Phone #:_____
e-mail: _____

Sales Contact
Name: _____
Phone #:_____
e-mail: _____

Billing Contact
Name: _____
Phone #:_____
e-mail: _____

Signing this Agreement affirms that the original solicitation document has not been altered in any way.

Special Provisions for:
Insurance Coverage for Contractual Services

The Contractor and each of its agents, subcontractors, and consultants hired to perform the Work, shall purchase and maintain during the term of this contract insurance coverage which will satisfactorily insure the Contractor and where appropriate, the City against claims and liabilities which may arise out of the Work. Such insurance shall be issued by companies authorized to do business in the State of Illinois and approved by the City. The insurance coverages shall include, but not necessarily be limited to, the following:

- **Worker's Compensation Insurance** with limits as required by the applicable statutes of the State of Illinois. The employer's liability coverage under the worker's compensation policy shall have limits not less than ONE MILLION DOLLARS ($1,000,000) and each accident/injury and ONE MILLION DOLLARS ($1,000,000) each employee/disease and ONE MILLION DOLLARS ($1,000,000) policy limit.
  The workers compensation policy shall provide a waiver of subrogation to the City.

- **Commercial General Liability Insurance** protecting the Contractor against any and all liability claims which may arise in the course of performance of this contract. The limits of liability shall be not less than ONE MILLION DOLLARS ($1,000,000) each occurrence bodily injury/property damage combined single limit and ONE MILLION DOLLARS ($1,000,000) aggregate bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis. Completed Operations coverage shall continue for a period of two years after completion of the project.

- **Commercial Automobile Liability Insurance** covering the Contractor's owned, non-owned, and leased vehicles which protects the Contractor against automobile liability claims whether on or off of the city's premises with coverage limits of not less than ONE MILLION DOLLARS ($1,000,000) per accident bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis.

- **Umbrella or Excess Liability Insurance co**verage of not less than FIVE MILLION ($5,000,000) per occurrence.

Nothing herein set forth shall be construed to create any obligation on the part of the City to indemnify Contractor for any claims of negligence against Contractor or its agents, employees, subcontractors or consultants. Prior to commencement of any work under this Agreement, Contractor shall file with the City the required original certificates of insurance with endorsements, including those of subcontractors, which shall clearly state all of the following:

A. The policy number; name of insurance company; name and address of the agent or authorized representative; name, address, and telephone number of the insured; project name and address; policy expiration date; and specific coverage amounts; and

B. That the City of Wheaton (including its agents, elected officials, officers and employees) is named as an additional insured under all coverage, except Workers' Compensation, and that all such coverage shall be primary and non-contributory for the City, its agents, elected officials, officers, and employees. A waiver of subrogation on all coverages shall be provided; and

C. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions; and

D. Contractor's insurance is primary with respects to any other valid or collectible insurance City may possess, including any self-insured retention that City may have; and

E. Any deductibles or self-insured retention shall be stated on the certificates of insurance provided to the City; and

In addition to all of the insurance requirements identified above and contained on the certificates of insurance, all policies of insurance coverage under this section shall also be subject to the following requirements.

F. All insurance carriers providing coverage under this Agreement shall be authorized to do business in the State of Illinois and shall be rated at least A:VI in A.M. Best and Companies Insurance Guide or otherwise acceptable to the City.

G. The City of Wheaton shall have the right to reject the insurer/insurance of the contractor or any subcontractor; and

H. Occurrence policies are preferred. The city may accept claims based policies on a case by case basis providing the contractor purchases claims made policy for two (2) years past the contract completion date.

I. The City will consider deductible amounts as part of its review of the financial stability of the bidder; and

J. No acceptance and/or approval of any insurance by the City shall be construed as relieving or excusing the Contractor, or the surety, or its bond, from any liability or obligation imposed upon either or both of them by the provisions of the Contract Documents; and

K. The City may require increases in Contractor's insurance coverage amounts over the course of this Agreement as it deems necessary so long as it reimburses Contractor for the actual increase in Contractor's insurance premiums attributable to the City's requested increase; and

L. Insurance coverage required by this contract shall be in force throughout the Contract Term and upon written request by the City, the Contractor shall, within 7 days, provide to the City acceptable evidence of current insurance. Should the Contractor fail to provide acceptable evidence of current insurance following written request, the City shall have the absolute right to terminate the Contract without any further obligation to the Contractor; and

M. Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the City from supervising or inspecting the project to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it; and

N. All existing structures, utilities, roads, services, trees, shrubbery and landscaping shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). A waiver of subrogation is required.

PRODUCER	CONTACT NAME:
	PHONE (A/C, No, Ext): / FAX (A/C, No):
	E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A :	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY							
	[X] COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 300,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 3,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 3,000,000
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS / [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS / [X] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	[X] UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$ 5,000,000
	[X] EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$ 5,000,000
	[ ] DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						[X] WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [ ] (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
	Professional Liability and Errors and Omissions: Owners/Contractors Protection XCU coverage Pollution / Environmental liability							5,000,000 per GL Limits 5,000,000

HIGH

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Bid/Project Name –or- Contract Name and #
Contractor
Contact
Address
Phone #, Email, Fax #

- The City of Wheaton is an additional insured on a primary and non-contributory basis on all insurance policies with respect to Liability.
- Endorsements and A Waiver of Subrogation shall be provided for all policies with each updated certificate
- Contractors: It shall be the responsibility of the contractor to insure that all subcontractors comply with the same insurance requirements.

CERTIFICATE HOLDER

City of Wheaton
303 West Wesley Street PO Box 727
Wheaton, IL 60187-0727
Attn Procurement Officer (fax) 630-260-2017

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

LISTING OF MATERIAL SUPPLIERS

☐ ***I will not be using any Material Suppliers for this work.***
☐***I will be using the following Material Suppliers for the identified portions of this work.***

Item:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Item:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Item:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Item:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Total Dollars Allocated for Material Suppliers $_____

LISTING OF SUBCONTRACTORS, CONSULTANTS, AND AGENTS

☐ ***I will not be using any Subcontractors, Consultants, and Agents for this work.***
☐***I will be using the following Subcontractors, Consultants, and Agents for the identified portions of this work.***

Service:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Service:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Service:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Service:_____ Company Name_____
Contact Name _____
Dollar Value: _____ Contact phone_____E-mail_____

Total Dollars Allocated for Services $_____

City of Wheaton Distribution Specifications – As of July 3, 2015

All Materials shall be as specified below or approved equal, be produced in North America and be the current year model. All brass shall be "No-lead", meeting the requirements of the Reduction of Lead in Drinking Water Act.

Water main

Unless approved in writing all water main shall be 8" minimum size class 52 Ductile Iron Pipe.

If PVC water main is allowed, it must be approved in writing and shall be Certa-Lok PVC or equal. The design shall include two #10 Solid Insulated Copper tracer wires that terminate in a Valvco Inc. Tracer Wire Access Box at each end. Shop drawings of the tracer wires must be submitted and approved for all PVC water main.

Fire Hydrants

1. Mueller Centurian A-421, 4½ inch valve opening with 6-inch flange x mechanical A2360 resilient wedge valve attached. All bolts shall be stainless steel on all valves and hydrants.

Gate Valves

1. Mueller A2360-23 (4-inch through 12-inch) or A2361-23 (16-inch) resilient wedge gate valve
   OR
2. American Flow Control Series 2500 resilient wedge valve

Mechanical Joints

1. EBAA Iron Megalug mechanical joint restraint gland

Tapping Valves

1. Mueller A2360-19 flange x mechanical joint resilient wedge valve
   OR
2. American Flow Control Series 2500 flange x mechanical joint resilient wedge valve

Tapping Sleeves – All Pressure Connections 4" to 8" Shall Be Done By The City Of Wheaton

1. Smith-Blair 665 stainless steel tapping sleeve with stainless steel flange
   OR
2. Ford FTSS stainless tapping sleeve with stainless steel flange

Valve Boxes

1. Tyler Union 664S screw type cast iron two-piece valve box
   Note: Plastic valve boxes or plastic extensions **are not** allowed
2. Valve Box Adaptor II
   a. Type A Gate Valves – 4"-6" Mueller, 4"-6"-8" AFC
   b. Type B Gate Valves – 8" Mueller, 10"-12" AFC
   c. Type D Gate Valves – 10" Mueller
   d. Type E Gate Valves – 12" Mueller, 16" AFC
3. Valve box extensions shall be Tyler Union #58, #60 or Tyler Union #69 riser.

End Caps

1. Class "A" pipe: Tyler Union Mechanical Joint Cap.

   Class "B-C-D" pipe: Tyler Union MJ x PE Dual-Purpose Cutting-in Sleeve with Tyler Union Mechanical Joint Cap.

Polyethylene Wrap – Required on all Water Main Installations

1. All ductile iron water main and fittings shall be encased with Class C, black or clear, 8 mils. thick, linear low density polyethylene wrap, secured with polyethylene tape.

Service Fittings

1. **Corporation Cock**
   a. Mueller 300 Ball Corporation Valve B-25000N
   OR
   b. Ford Corporation Stops FB600-*size*-NL

2. **Corporation Cock Quarter and Eighth Bends – ¾", 1", 1 ¼", 1 ½" and 2"**
   a. Mueller brass with compression ends and swivel nut. Flare nut, non-swivel accepted on sizes where others aren't made. Mueller P-15075N, P-15076N
   OR
   b. Ford brass with compression ends and swivel nut. Flare nut, non-swivel accepted on sizes where others aren't made. Ford LA04-*size*-NL, L04-*size*-NL.

3. **Curb Stop**
   a. Mueller 300 Ball Curb Valve P-25155N
   OR
   b. Ford Ball Valve Curb Stop B44-*size*M-NL

4. **Curb Box**
   a. Mueller H-10300 curb box with Minneapolis Pattern Base.

5. **Service Saddles**
   a. Smith-Blair Model 317 Epoxy Coated Ductile Iron with double stainless steel strap.

PRODUCT INFORMATION AND SPECIFICATIONS

The Contractor shall use the following specified products as enclosed herein or approved equal.

Valve Box Adaptor II
Infi-Shield Uni-Band
Canusa Wrap – Pipe Wrap
Infra-RISER Rubber Adjustment Riser
Catch-All Inlet Protector
Detectable Warning Systems
- E-Z Set Warning Panels
- TufTile ADA Tactile Products

Valve Box Adaptor II

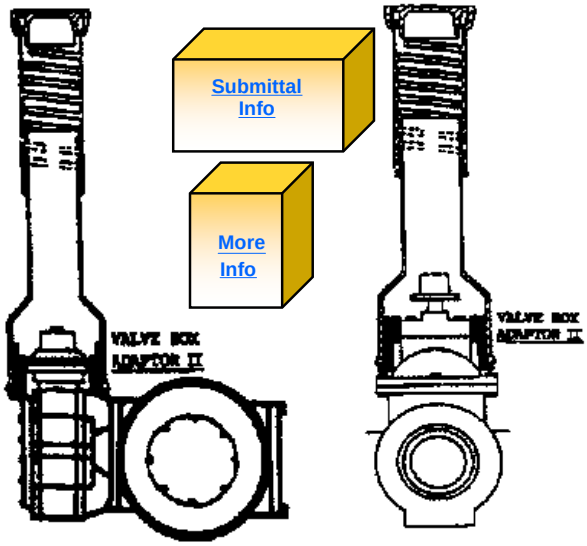
Municipal water utilities and contractors have benefited over the years from the use of the Valve Box Adaptor II.

The Valve Box Adaptor II has eliminated improper keying of the valves due to settling and shifting of the valve box.

Using the Valve Box Adaptor II has proven to be a cost effective product for water utilities. It has reduced future budget costs by eliminating the excavation and resetting of the valve box.

Advantages

- **Eliminates settling and shifting of the gate and butterfly valve boxes.**
- **Protects epoxy coating on valves.**
- **Centers valve box over operating nut.**
- **Seals valve box with a resilient material.**
- **Cost effective**



SERVING THE WATER & SEWER INDUSTRY
ADAPTOR INC.
AMERICAN MADE PRODUCTS
SINCE 1976

Products

Home

More Products

Valve Box Adaptor II Specs

All valve boxes shall be installed upon the valve with the use of a Valve Box Adaptor II as manufactured by Adaptor Inc. or an approved equal. The adaptor shall be installed in lieu of hardwood blocking and shall be incidental to the valve and box installations.

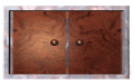
Manufactured from a rubber compound.

Type	Valve & Size
A	AFC 3”- 8” Mueller 4”, 6” Matco 12”
B	AFC 10”, 12” Mueller 8”
C	Kennedy/Clow/M&H 4”- 8” East Jordan 6”
D	Mueller 10”
E	Kennedy/Clow/M&H 10”- 16” Mueller 12” AFC 16” East Jordan 8”
F	East Jordan 10”, 12” Mueller 2”, 2 1/2”
G	Mueller 3” Matco 8”
A-EJ	East Jordan 4” AVK 6”
A-Matco	Matco 6”
B-Matco	Matco 4”
D-Matco	Matco 10”
H-Matco	Matco 3”
I-Matco	Matco 2”
H-AVK	AVK 2 1/2”- 4”
C-AVK	AVK 8”- 16”
I-AVK	AVK 2”

The Valve Box Adaptor II are made for a Tyler box or equal.

Manufactured for all types and sizes of Gate Valve, Butterfly Valves and valve boxes for water, gas and wastewater valves.

***If using a Bibby box call for sizing and prices.



Home

More Products

For more info on pricing or your local distributor contact Adaptor Inc.

INFI-SHIELD®

UNI-BAND

SPECIFICATION FOR MANHOLE ADJUSTMENT RINGS

Patent Pending

PART I - GENERAL

1.01 SCOPE

This section shall include the complete Uni-Band seal manhole sealing system. The sealing system shall prevent leakage of water into the manhole through the frame joint area and through the adjustment ring area.

1.02 MATERIALS TO BE FURNISHED

All materials required for the installation of the Uni-Band manhole sealing system shall be furnished by the contractor and shall be new, of first grade, and shall be of reputable manufacturers known to the trade.

PART II - PRODUCTS

2.01 GENERAL

The casting shall be sealed to the structure with a Uni-Band sealing system as manufactured by Sealing Systems, Inc. (800-478-2054) or approved equal. The seal shall be a continuous seamless band made of high quality EPDM (Ethylene Propylene Diene Monomer) rubber with a minimum thickness of 65 mils. There shall be a preformed L shaped corner molded into the top of the seal. The top section and the side section will extend from the L shaped corner at a generally 90-degree angle to each other. Wherein the seal is preformed in substantially the same shape as when attached to the manhole structure. The thickness of the L shaped corner extending 1" into the top section and 1" down the side section is increased and may be at least twice the thickness of the top section reinforcing the seal at this particular area. There shall be a 2" to 3" wide strip of butyl mastic attached to the underside of top section of the seal. There shall be a 2" wide strip of butyl mastic attached to the inside of the side section at the bottom of the seal. The mastic shall be non-hardening butyl rubber sealant, with a minimum thickness of 1/8", and shall seal to the cone/top of the manhole section and over the flange of the casting frame. An aerosol primer shall be used to enhance the bond strength of the seal to the structure.

PART III - EXECUTION

3.01 INSTALLATION

The Uni-Band seal sealing system shall be installed according to the manufacturers recommendations. The top section of the seal shall extend 3" attaching to the casting base/flange with the side section covering over the entire grade adjustment ring area and onto the cone section a minimum of 2".

CANUSA-CPS
A SHAWCOR COMPANY

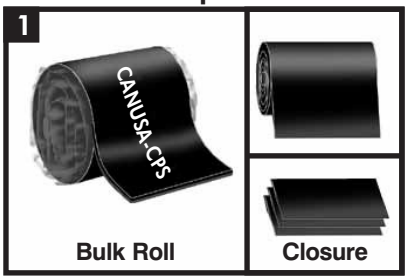
Installation Guide

CanusaWrap™

Two-piece protective bulk roll with separate closure

Product Description

1



CanusaWrap™ is typically shipped in bulk rolls. The adhesive is protected from contamination by an inner liner. Closures are shipped either in bulk rolls or pre-cut.

Storage & Safety Guidelines

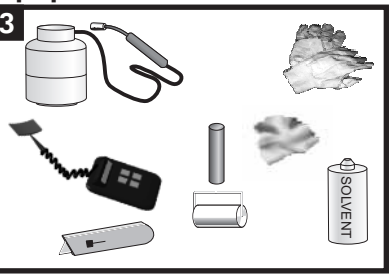
2

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 35°C *(95°F)* or below -20°C *(-4°F)*. Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

Equipment List

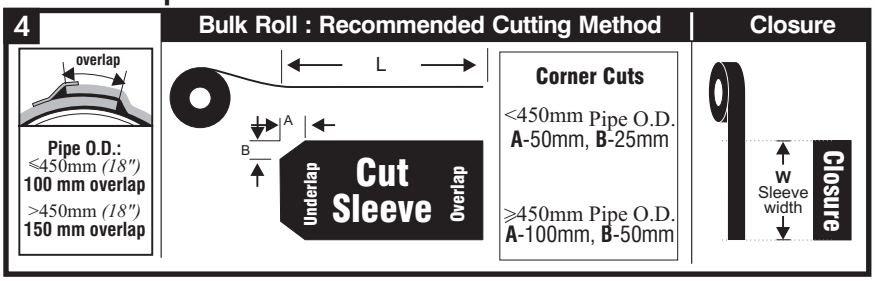
3



Propane tank, hose, torch & regulator
Appropriate tools for surface abrasion
Knife, roller, rags & approved solvent cleanser
Digital thermometer with suitable probe
Standard safety equipment; gloves, goggles, hard hat, etc.

Product Preparation Guidelines

4



As a guideline,cut the required lengths of Sleeve material (L)and Closure material (W) from the bulk roll as follows

L = Coated Pipe circumference + overlap dimension

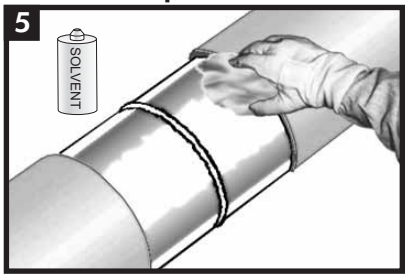
W = Sleeve Width

Ensure that the sleeve and closure are not damaged or contaminated. Trim corners as shown .

Please see **"CanusaWrap™ Sleeve Cutting Guideline"** for more information on alternative cutting methods.

Surface Preparation

5



Ensure that the PE coating edges are beveled to 30°. Clean exposed steel and adjacent pipe coating with a solvent cleanser to remove the presence of oil, grease, and other contaminants.

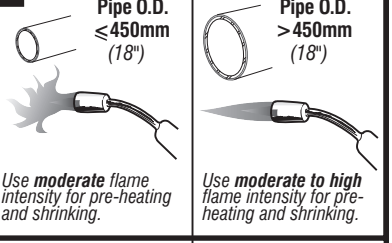
Surface Preparation and Pre-Heat Chart

6

	Standard Sleeves		Surface Preparation				Min. Pre-Heat Temp.	
			SIS Standard		*SSPC Standard*		°C	*(°F)*
			Minimum	Preferred	Minimum	Preferred		
Mastic	WLG	WTG	St2	**Sa2**	SP2	**SP6**	**50**	*(122)*
	WLC	WTC	St2	**Sa2**	SP2	**SP6**	**60**	*(140)*
	WLS	WTS	St2	**Sa2**	SP2	**SP6**	**65**	*(150)*
	WLO	WTO	St2	**Sa2**	SP2	**SP6**	**75**	*(167)*
	WLON	WTON	St2	**Sa2**	SP2	**SP6**	**75**	*(167)*
	WLNN	WTNN	St3	**Sa2½**	SP3	**SP10**	**90**	*(195)*
Hot Melt	WLA		St3	**Sa2½**	SP3	**SP10**	**60**	*(140)*
	WLAS		St3	**Sa2½**	SP3	**SP10**	**90**	*(195)*

Flame Intensity & Torch Size

7



*Use **moderate** flame intensity for pre-heating and shrinking.*

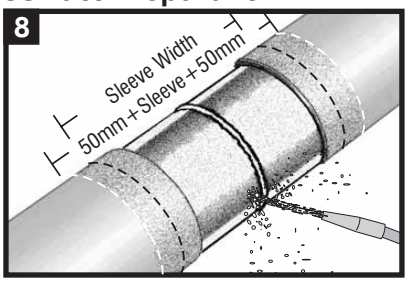
Minimum Torch Size: **150,000 BTU/hr.**

*Use **moderate to high** flame intensity for pre-heating and shrinking.*

Minimum Torch Size: **300,000 BTU/hr.**

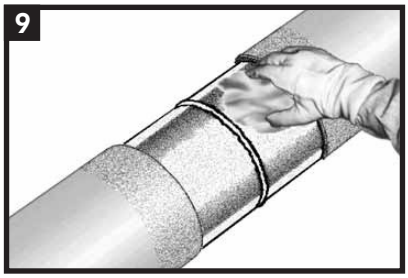
Surface Preparation

8



Ensure that the pipe is dry before cleaning. Prepare the steel joint area using the Surface Preparation and Pre-Heat Chart as a guideline. Lightly abrade the pipe coating adjacent to the cutback area to a distance of 50mm (2") beyond each end of the sleeve width.

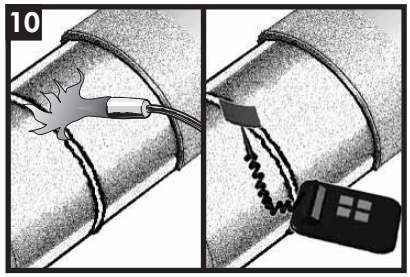
9



Wipe clean or air blast the steel and pipe coating to remove foreign contaminants.

Pre-Heat

10

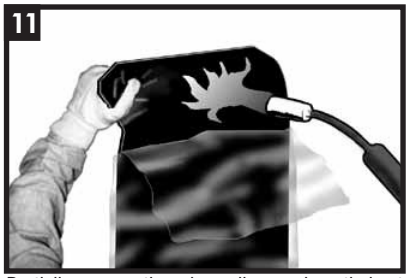


Pre-heat the joint area to the minimum required temperature (see Surface Preparation & Pre-Heat Chart). Using a temperature measuring device, ensure that the correct temperature is reached on the steel and at least 50mm (2") on each side of the sleeve.

CanusaWrap™

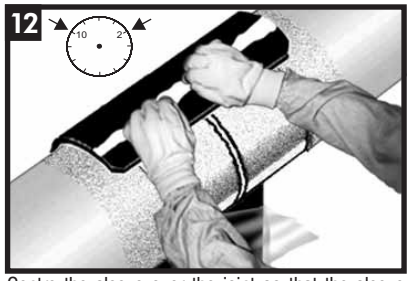
Sleeve Installation

11



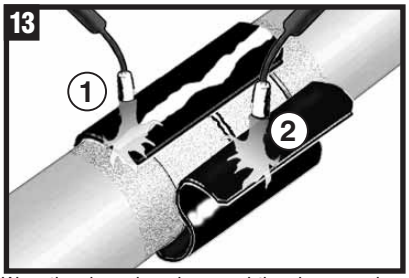
Partially remove the release liner and gently heat the underlap approximately 150 mm (6") from the edge.

12



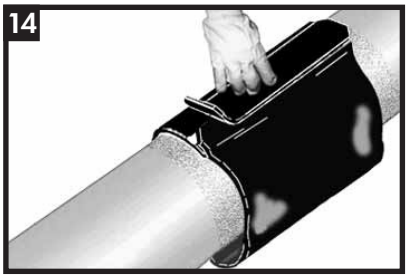
Centre the sleeve over the joint so that the sleeve overlaps between the 10 and 2 o'clock positions. Press the underlap firmly into place and remove the remaining release liner.

13



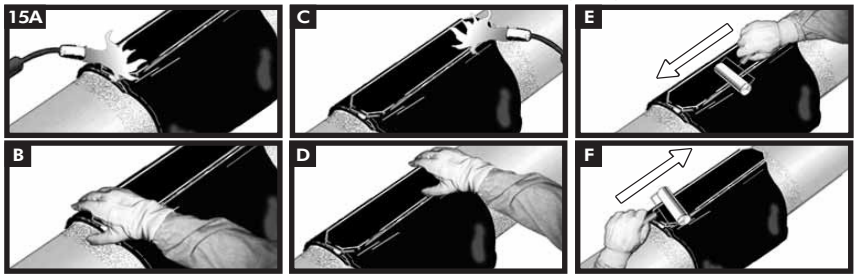
Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap and the adhesive side of the overlap. Press the overlap into place.

14



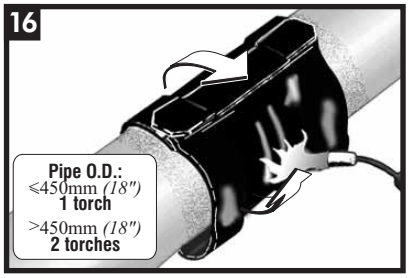
Remove any release liners from the Closure Strip . Centre the closure on the overlapping sleeve. Press down firmly.

15A



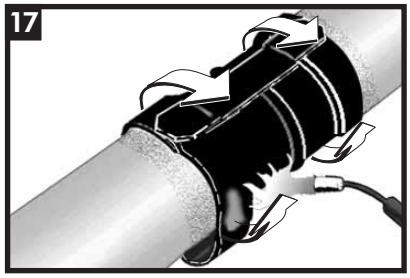
Gently heat the closure and pat it down with a gloved hand. Repeating this procedure, move from one side to the other. Smooth any wrinkles by gently working them outward from the centre of the closure with a roller.

16



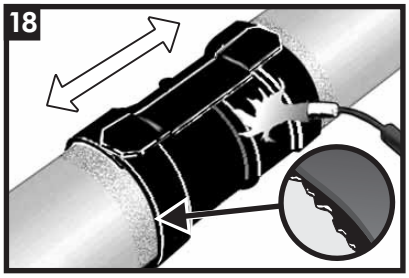
Using the appropriate sized torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.

17



Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.

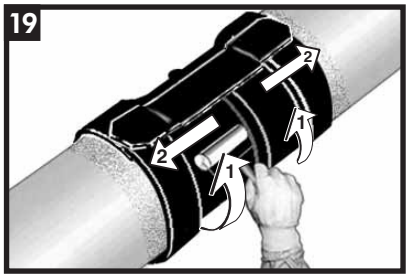
18



Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

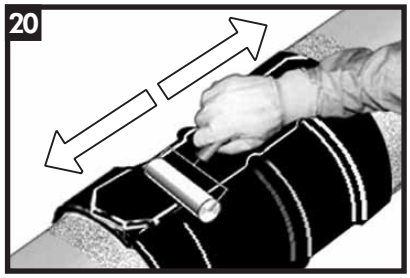
Inspection

19



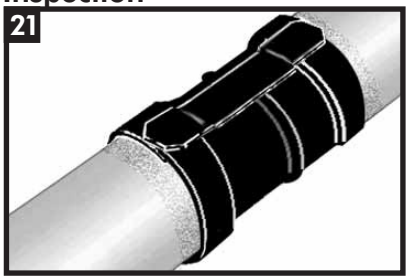
While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.

20



Continue the procedure by also firmly rolling the closure with long horizontal strokes from the weld outwards.

21



Visually inspect the installed sleeve for the following:

- Sleeve is in full contact with the steel joint.
- Adhesive flows beyond both sleeve edges.
- No cracks or holes in sleeve backing.

Backfilling Guidelines

After shrinking is complete, allow the sleeve to cool for 2 hours prior to lowering and backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles) otherwise an extruded polyethylene mesh or other suitable shield should be used.

CANUSA-CPS
A SHAWCOR COMPANY

www.canusacps.com

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Tel: +1 (416) 743-7111
Fax: +1 (416) 743-5927

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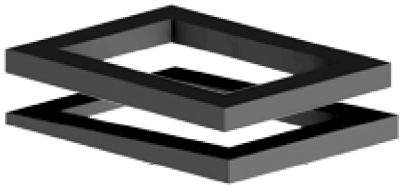
Fax: +44 (1293) 541777

Asia/Pacific
CANUSA-CPS
BrederoShaw (S) Pte Ltd
101 Thomson Road
#17-01/02, United Square
Singapore
307591
Tel +65-6732-2355
Fax +65-6732-9073

IG-CW-rev012

AN INFRA-RISER® SOLUTION FOR EVERY APPLICATION

INFRA-RISER® SHAPES

ROUND	SQUARE	RECTANGULAR
		
Round with taper	Square with taper	Rectangular with taper

THICKNESS	OPTION
.5″ 1″ 1.5″ 2″ 2.5″ 3″*	Flat Tapered

* Maximum height of stacked INFRA-RISER® composite rubber adjustment riser should not exceed 3″ on any installation.

CONTACT US FOR MORE INFORMATION

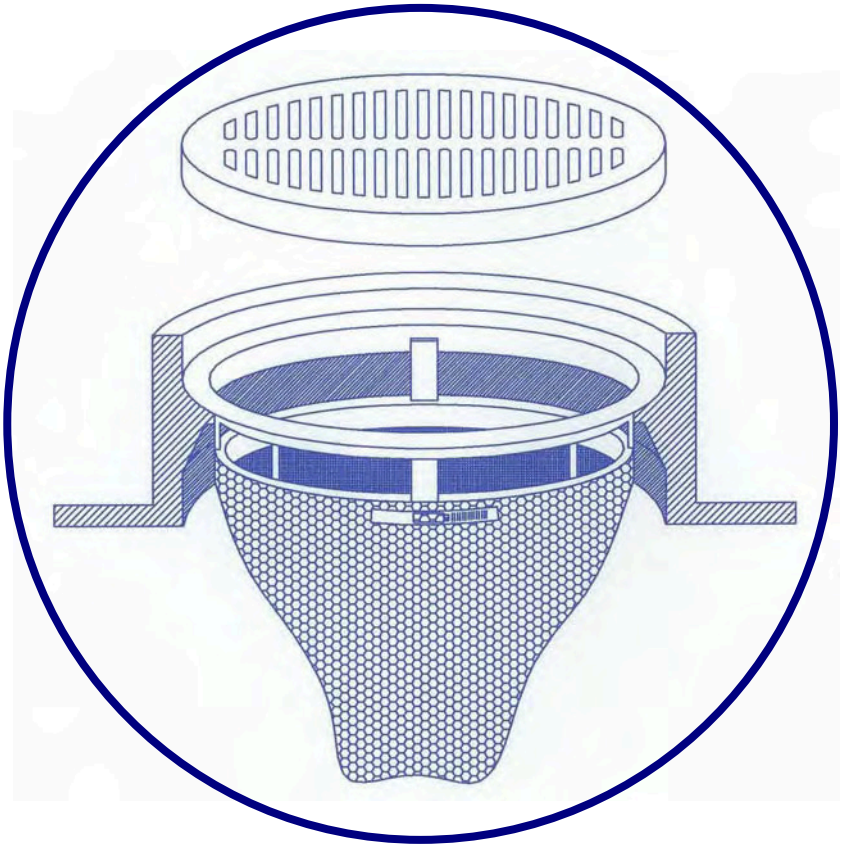
Your local East Jordan Iron Works Representative will provide you with more information on the INFRA-RISER® composite adjustment riser product line, including:

- Technical specifications and drawings for round, square, rectangular or tapered INFRA-RISER® adjustment risers
- Complete listing of available sizes
- Installation procedure for vacuum test

Catch-All

Inlet Protector

Custom fitted to virtually any inlet casting

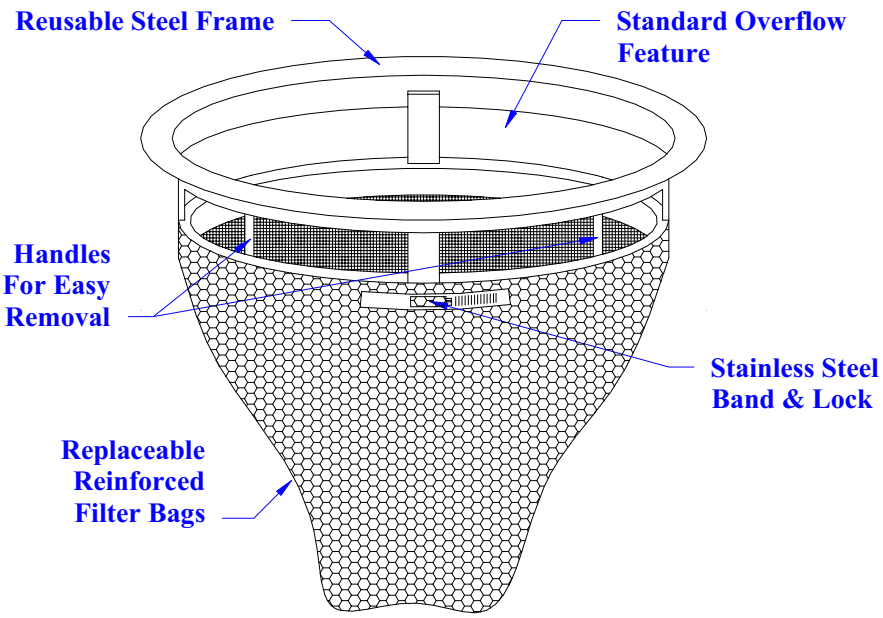


INSTALLED COMPLETELY BELOW THE GRATE

Marathon Materials, Inc.
25523 W. Schultz Street
Plainfield, IL 60544
(800) 983-9493

Distributed by…

Catch-All - **is a manufactured inlet filtration device designed to significantly reduce the ingress of pollutants into stormwater systems, and therefore, improve water quality. Designs are available for a custom fit in virtually any drainage structure casting.**



Catch-All HR is available to provide the added benefit of hydrocarbon removal.

Design Benefits

1. Pollution Prevention
   - Sediment Control
2. Pollution Removal
   - Hydrocarbons (Catch-All HR)
   - Total Suspended Sediment
   - Phosphorus*
   - Nitrogen*
   - Heavy Metals*

* *By virtue of sediment control*

Applications

1. Site Development & Highway Construction
   - Inlet Protection / Sediment Control
2. Permanent BMP
   - Maintenance Yards
   - Wash Bays
   - Parking Lots & Garages
   - Airports – Tarmac, Cab/Limo Stands, Rental Returns
   - Bank/Fast Food Drive-Ups
   - Reduce Maintenance of Underground Detention Systems
   - Reduce Maintenance of Underground Oil/Water Separators

SEDIMENT CONTROL, INLET FILTERS

Description: This work shall consist of the furnishing, installation, and removal of a drainage structure inlet filter assembly, consisting of a frame and filter bag, to collect sediment in surface stormwater runoff at locations shown on the plans or as directed by the Engineer.

The Contractor shall inspect the work site and review the plans to determine the number and dimensions of the various types of drainage structure frames (circular and rectangular) into which the inlet filters will be installed prior to ordering materials.

The drainage structure inlet filter assembly shall be installed under the grate on the lip of the drainage structure frame with the fabric bag hanging down into the drainage structure.

The drainage structure inlet filter assembly shall remain in place until final removal of the assembly is directed by the Engineer. The drainage structure inlet filter assembly shall remain the property of the Contractor.

Final removal of the assembly shall include the disposal of debris or silt that has accumulated in the filter bag at the time of final removal. Periodic cleaning of the filter is paid for separately.

Materials: The drainage structure inlet filter shall be the "Catch-All Inlet Protector", as furnished by Marathon Materials, Inc., 25523 W. Schultz St., Plainfield, IL 60544, (800) 983-9493, or approved equal. A detail drawing in the plans depicts the drainage structure inlet filter assembly.

The drainage structure inlet filter assembly consists of a steel frame with a replaceable geotextile fabric bag attached with a steel band with locking cap that is suspended from the frame. A clean used bag and a used steel frame in good condition, meeting the approval of the Engineer, may be substituted for new materials.

The drainage structure inlet filter assembly frame shall be rigid steel meeting the requirements of ASTM-A36. The frame shall include an overflow feature that is welded to the frame's ring. The overflow feature shall be designed to allow full flow of water into the structure if the filter bag is filled with sediment. The dimensions of the assembly frame shall allow the drainage structure grate to fit into the inlet filter assembly frame opening. The assembly frame shall rest on the inside lip of the drainage structure frame for the full variety of existing and proposed drainage structure frames that are present on this contract.

The drainage structure inlet filter assembly bag shall be constructed of a polypropylene geotextile fabric with a minimum weight of 4 ounces per square yard, a minimum flow rate of 145 gallons per minute per square foot, and designed for a minimum silt and debris capacity of 2 cubic feet. The filter bag shall be reinforced with an outer layer of polyester mesh fabric with a minimum weight of 4 ounces per square yard. The filter bag shall be suspended from the steel frame with a stainless steel band and locking cap. The inlet filter assembly frame shall not cause the drainage structure grate to extend higher than 1/8 inch above the drainage structure frame.

Basis of Payment: The work will be paid for at the contract unit price per each for SEDIMENT CONTROL, INLET FILTERS, which price shall include all costs for labor, materials, equipment, and incidentals necessary to perform the work.

SEDIMENT CONTROL, INLET FILTERS CLEANING

Description: This work shall consist of cleaning sediment out of a drainage structure inlet filter when directed by the Engineer. This cleaning work is to be periodically performed as directed by the Engineer, for the duration of the use of each drainage structure inlet filter assembly. The Engineer will be the sole judge of the need for cleaning, based on the rate that debris and silt is collected at each inlet filter location.

Cleaning of the inlet filter shall consist of inspecting, cleaning (includes removal and proper disposal of debris and silt that has accumulated in the filter fabric bag), by vactoring, removing and dumping or any other method approved by the Engineer.

Method of Measurement: Cleaning of the drainage structure inlet filter shall be measured for payment each time that the cleaning work is performed at each of the drainage structure inlet filter locations.

Basis of Payment: The work will be paid for at the contract unit price per each for SEDIMENT CONTROL, INLET FILTERS CLEANING, which price shall include all costs for labor, materials, equipment, and incidentals necessary to perform the work.

Catch-All Inlet Protector

INLET FILTER SYSTEM MATERIALS

I. Non-Woven Polypropylene Filter Geotextile

Property	Test Method	Units	Minimum Average Roll Value (English)
Grab Tensile Strength	ASTM-D-4632	lbs	100
Grab Tensile Elongation	ASTM-D-4632	%	50
Mullen Burst	ASTM-D-3786	psi	225
Puncture	ASTM-D-4833	lbs	65
Trapezoidal Tear	ASTM-D-4533	lbs	45
UV Resistance	ASTM-D-4355	% @ hrs	70 @ 500
Hydraulic			
Apparent Opening Size	ASTM-D-1420	US Sieve	70
Permittvity	ASTM-D-4491	Sec. – 1	2.0
Flow Rate	ASTM-D-4491	Gal/min/ft²	145

II. Reinforcing Polyester Outer Mesh Fabric

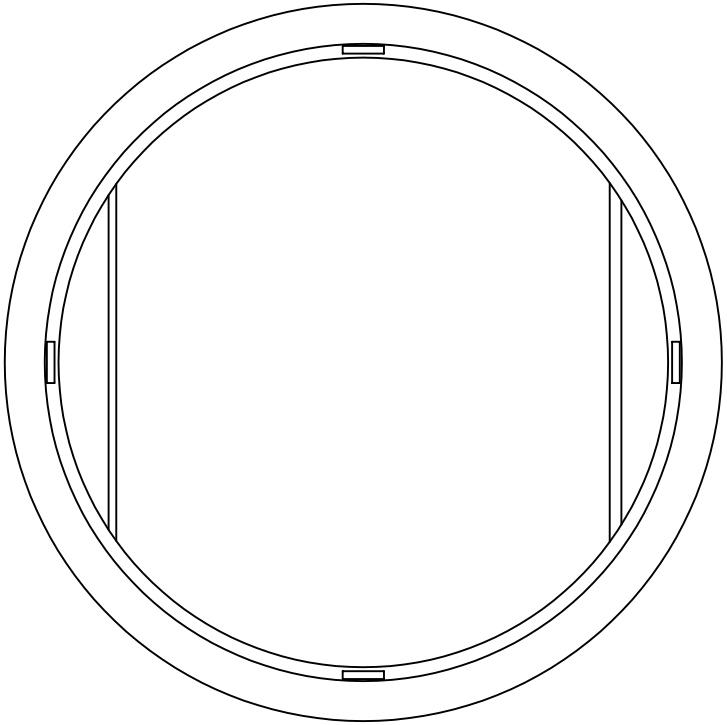
Property	Test Method	Value
Content	ASTM-D-629	Polyester
Weight (oz/yd²)	ASTM-D-3776	4.55 ± 15%
Whales (holes) inch	ASTM-D-3887	7.5 ± 2
Chorses (holes) inch	ASTM-D-3887	15.5 ± 2
Instronball Burst (psi)	ASTM-D-3887	120 min
Thickness	ASTM-D-1777	.040 ± .005

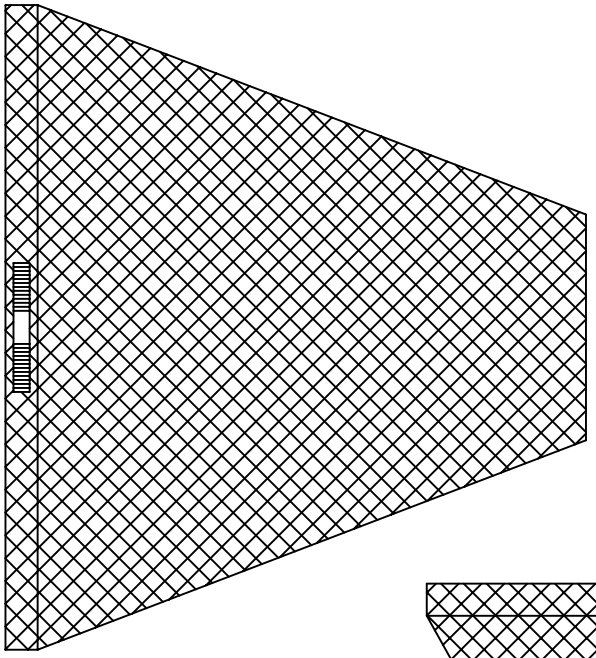
III. HR (*Hydrocarbon Removal*) Pillow Capacities

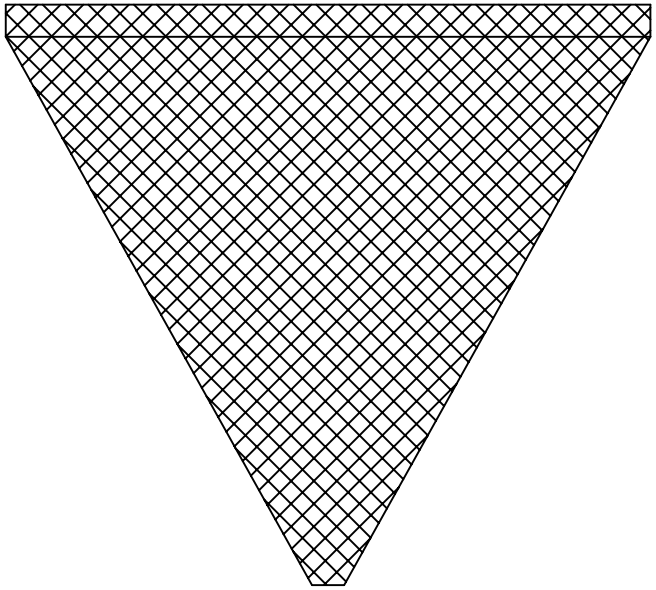
HR Pillow - 2.6 oz. Adsorbent/lf.

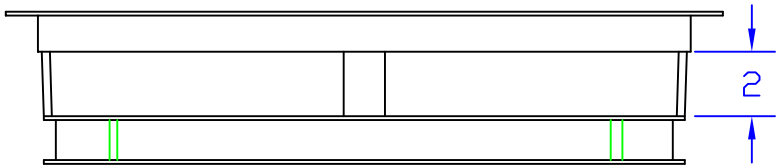
Type of Oil	Capacity by Weight – Oil / Adsorbent
Diesel	10:1
Fuel Oil	9:1
Machine Oil	8:1
30W Motor Oil	7:1

All capacities are rounded down









GENERAL NOTES:

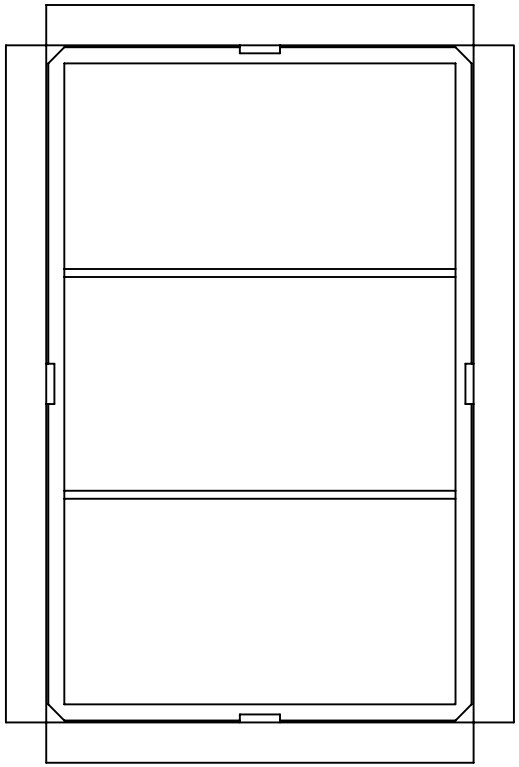
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.

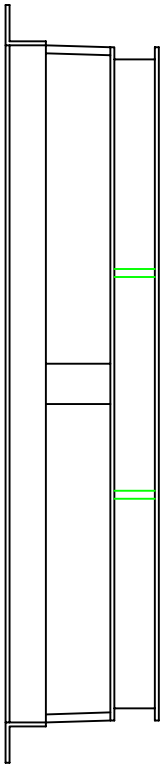
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

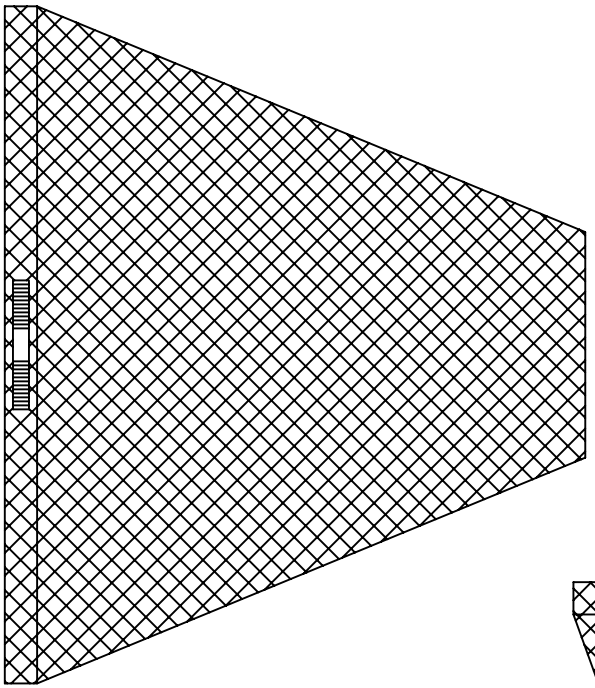
DATE	REVISIONS
01-11-02	Original

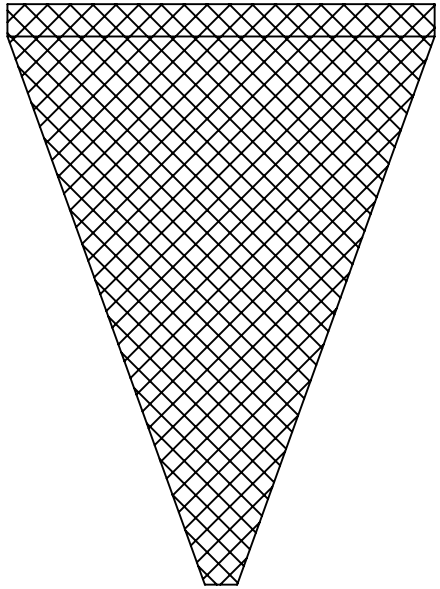
Typical Round Catch-All

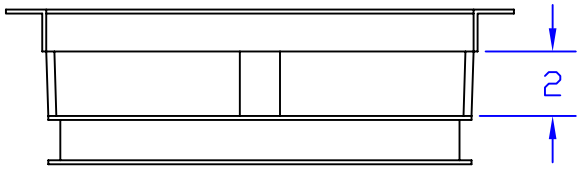
Marathon Materials, Inc.











GENERAL NOTES:

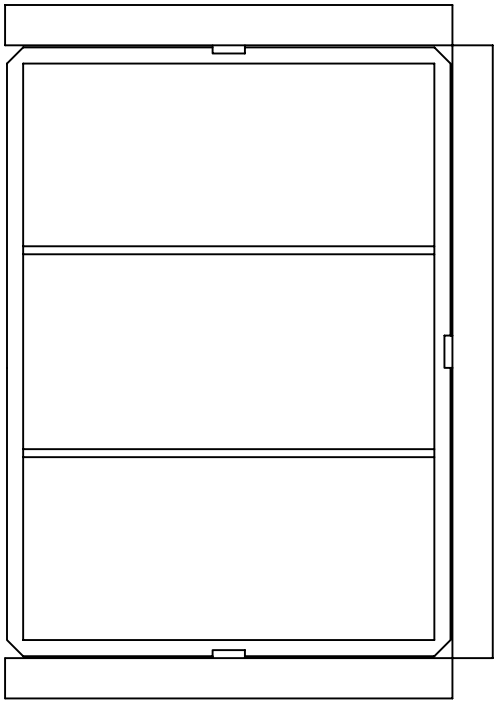
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.

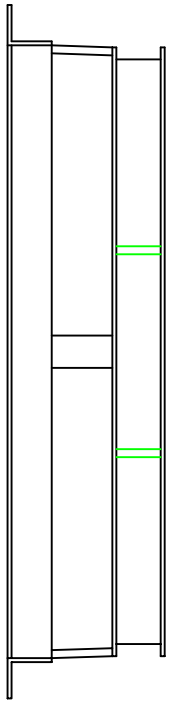
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

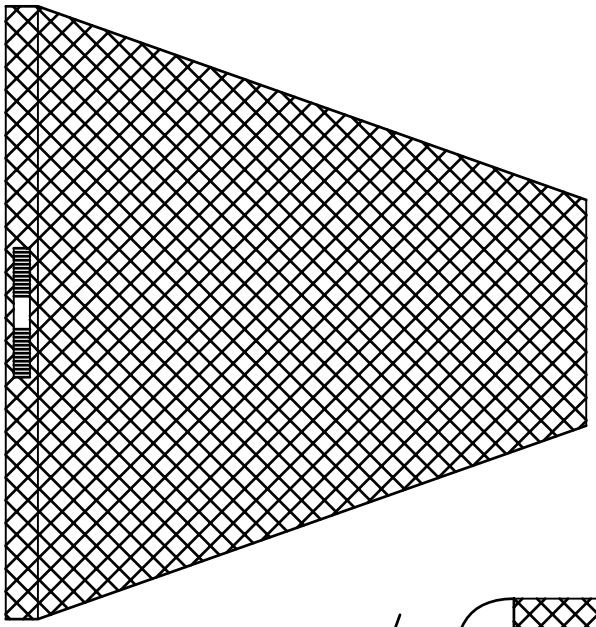
DATE	REVISIONS
01-22-02	Original

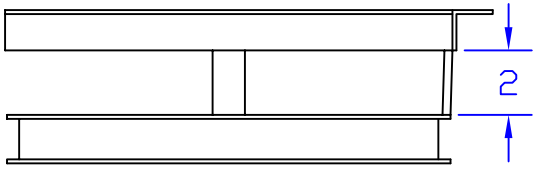
Typical Rectangular Catch-All

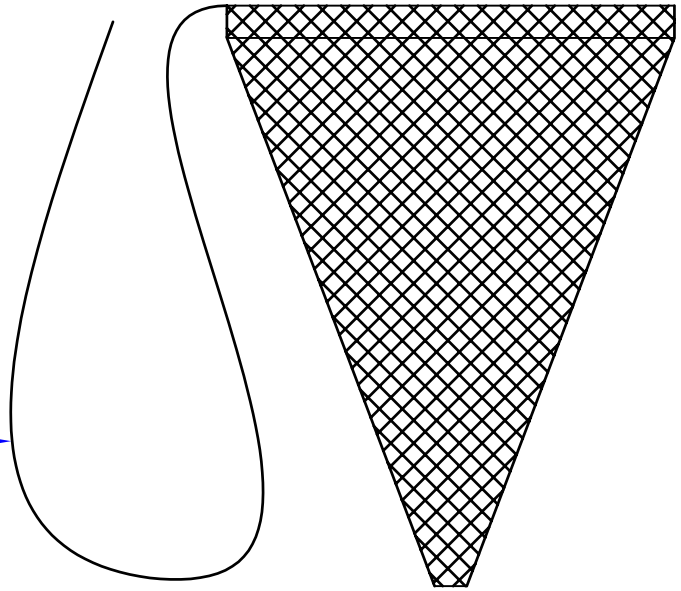
Marathon Materials, Inc.









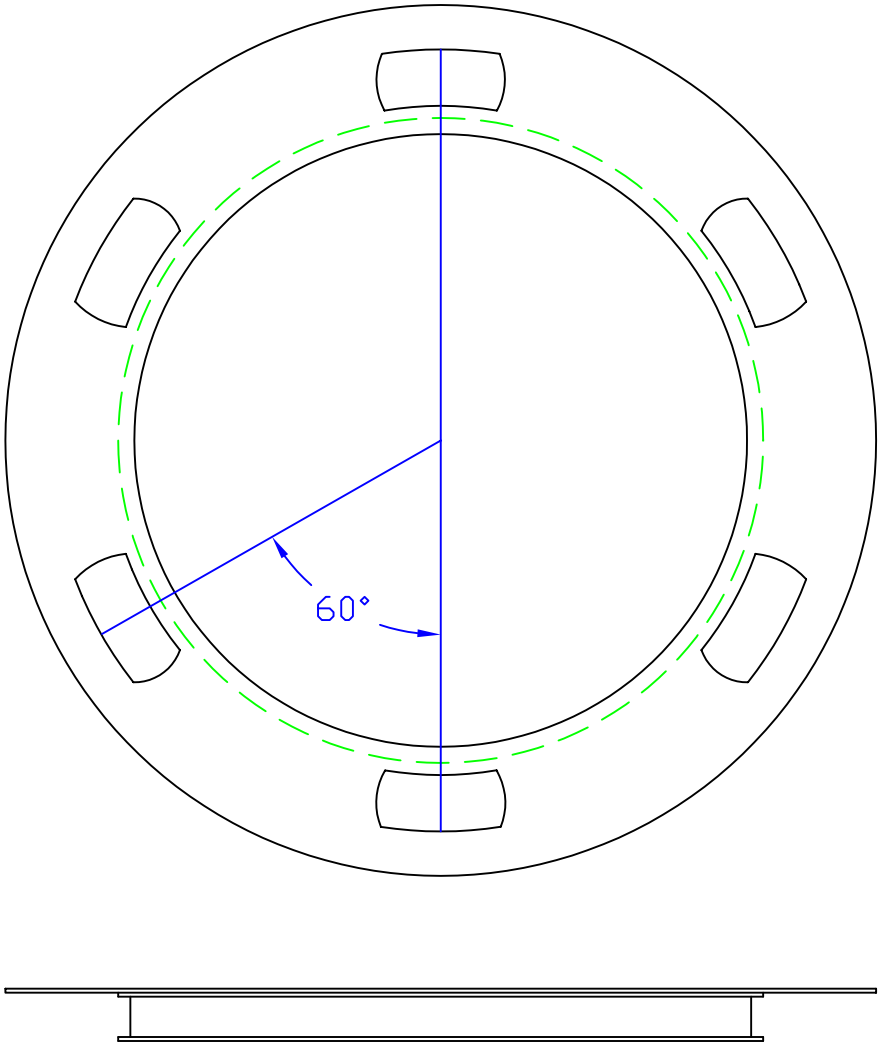


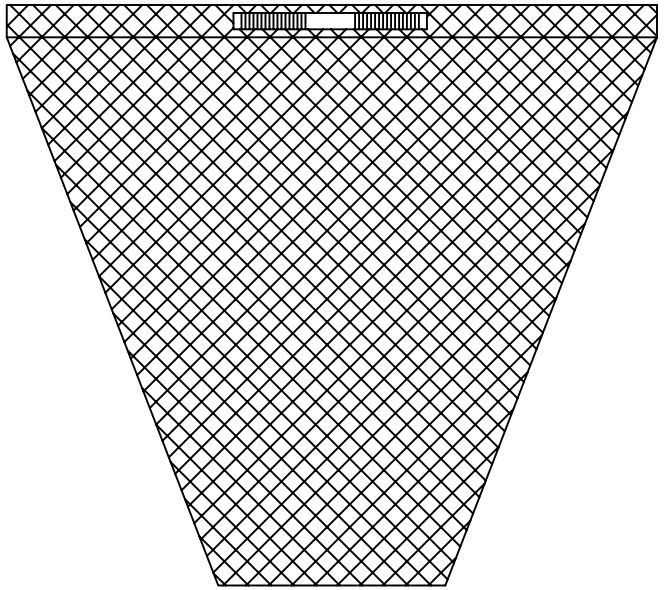
GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-11-02	Original
05-07-04	Remove Back Rail

Typical Curb Box Catch-All

Marathon Materials, Inc.





GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

DATE	REVISIONS
01-22-02	Original

Typical Beehive Catch-All

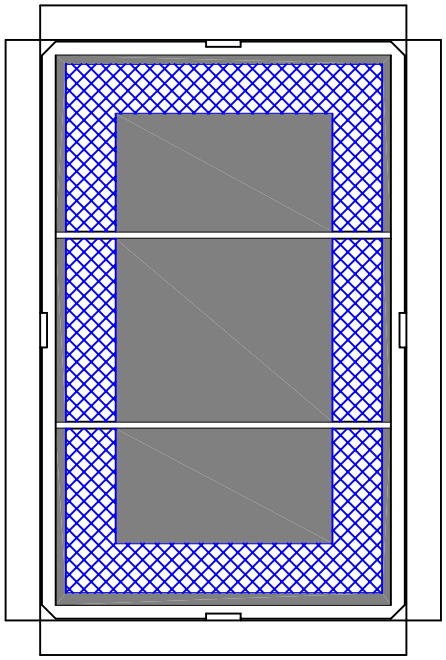
Marathon Materials, Inc.

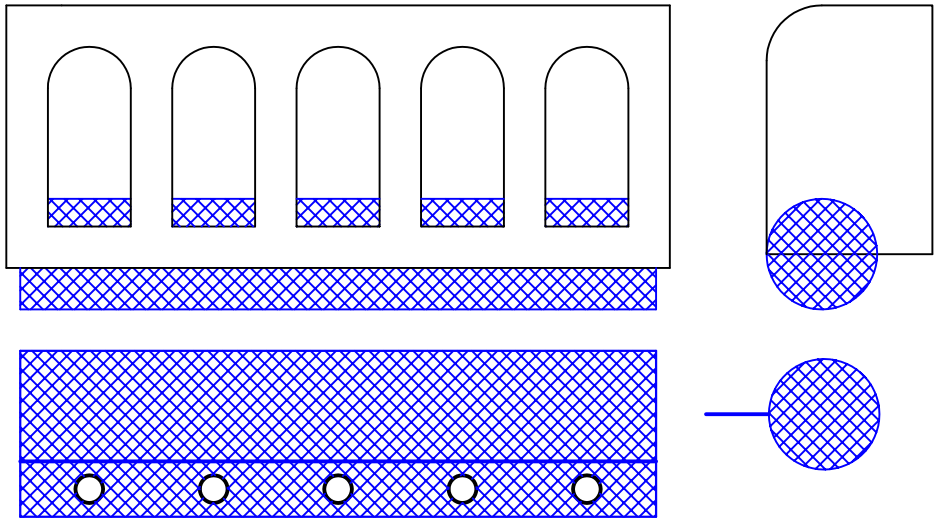
Catch-All HR

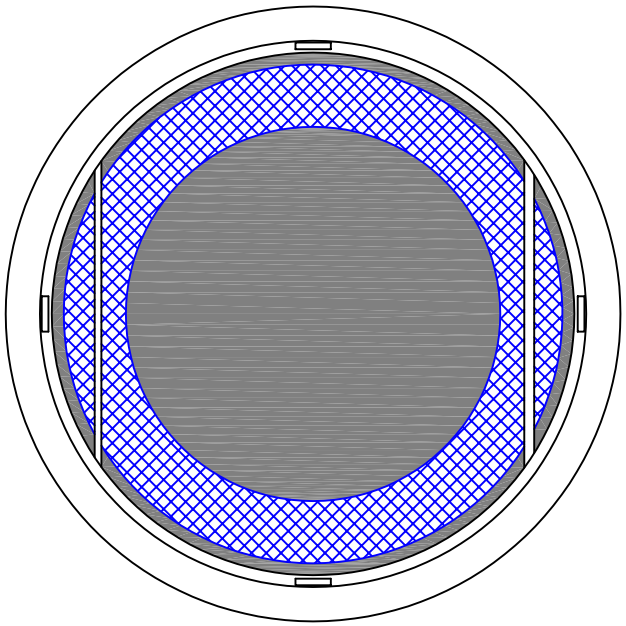
Catch-All Inlet Protector HR – combines all of the benefits of the standard Catch-All with the added benefit of hydrocarbon removal.

- Custom fitted to virtually any inlet casting
- Standard overflow feature
- Replaceable reinforced sediment bags
- Rugged welded steel frames
- Quick and simple installation & maintenance

Marathon Materials, Inc.
(800) 983-9493
25523 W. Schultz St.
Plainfield, IL 60544
www.marathonmaterials.com







This detail depicts the typical placement of the HR (hydrocarbon removal) pillow. An HR pillow is hemmed to the entire perimeter of the sediment bag +/- 4" from the top of the bag and extends +/- 4" towards center. Curb boxes are protected with a separate pillow that is secured to either the curb box vanes or the top flange of the Catch-All frame.

DATE	REVISIONS	Catch-All HR Adsorbent Pillow
5.12.04	Original	
		Marathon Materials, Inc.

Suggested Maintenance
Catch-All Inlet Protector

The frequency and degree of maintenance required is dependent on site conditions and rainfall. Certain types of soil and run-off laden with hydrocarbons, (oil, solvents, etc.), tend to "*silt-up*" the fabric bags more quickly than others.

Generally, the bags can be emptied, inverted, washed, and re-used throughout an entire project. They may also be vacuumed. The bag must be replaced if it is severely worn or torn.

GUIDELINES FOR CONSTRUCTION SITES

1. Inspect the bag at least every 2 weeks – Clean, if needed
2. Inspect the bag every time there is rainfall totaling 1 or more inches – Clean, if needed
3. Replace the bag if it has a hole in it
4. Replace the bag if it appears clean but won't pass water

Suggested Maintenance
Catch-All HR

Typically, the Catch-All HR is installed in a paved parking lot or maintenance yard. The degree and frequency of maintenance required is generally far less than for Catch-Alls installed at construction sites.

GUIDELINES FOR PARKING LOTS & MAINTENANCE YARDS

1. Inspect the bag at least once per month – Clean, if needed
2. Inspect the bag every time there is rainfall totaling more than two inches – Clean, if needed
3. Replace the bag every 6 months; More often for harsh environments
4. Replace the bag after any oil, gasoline, or solvent spill
5. Replace the bag if it has a hole in it
6. Replace the bag if it appears clean but won't pass water

INLET FILTER SYSTEM w/Hydrocarbon Removal

PART 1 GENERAL

1.01 WORK REQUIRED

An inlet filter system, as shown in the details, shall be installed and maintained in open grate frames as directed by the engineer.

1.02 SUBMITTALS

The contractor shall make submittals of the manufacturer's literature, shop drawings, installation and maintenance instructions, and other items in accordance with the provisions of the Standard Specifications.

PART 2 PRODUCTS

2.01 INLET FILTER SYSTEM HR

Inlet filter system HR shall consist of a replaceable reinforced filter bag with hydrocarbon removal capabilities suspended from a retainer ring, or frame. Inlet Filter Systems shall be the Catch-All **HR**, with Overflow, as furnished by Marathon Materials, Inc., or pre-approved equal.

The filter bag shall be constructed of a non-woven polypropylene filter geotextile fabric with a minimum weight of 4 oz./yd.^{2}, a minimum flow rate of 145 gal./min./ft.^{2}, and designed for a minimum silt and debris capacity of 2 cu. ft. The filter bag shall be reinforced with a polyester mesh fabric with a minimum weight of 4 oz./yd.^{2} and shall be fitted with a hydrocarbon removal pillow. The hydrocarbon removal pillow shall be hemmed around the entire perimeter of the sediment bag and extend a minimum of four inches towards center. The pillow shall have the capacity to adsorb a minimum seven times its own weight of hydrocarbon-based pollutants. *Curb boxes shall be fitted with a separate pillow, meeting the same requirements, that extends the full width of the box.* The filter bag shall be suspended from a galvanized steel ring, or frame, conforming to ASTM-A36, utilizing a stainless steel band and locking clamp. The frame shall be designed with an overflow feature to prevent any ponding during heavy rainfall.

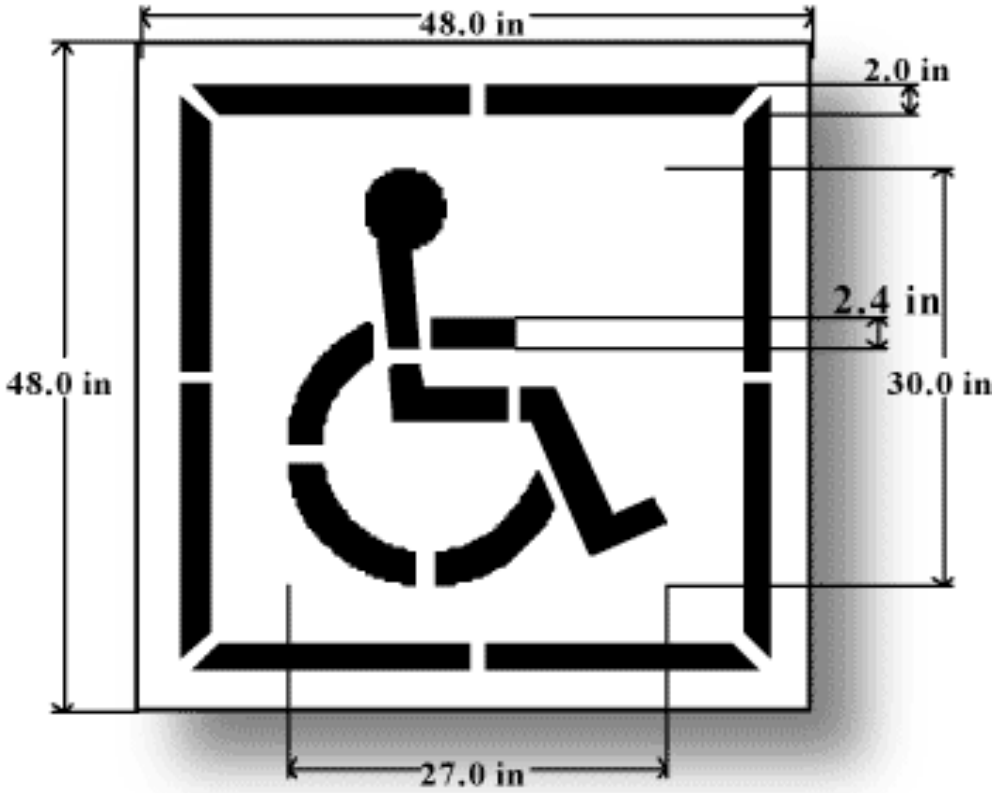
PART 3 MEASUREMENT AND PAYMENT

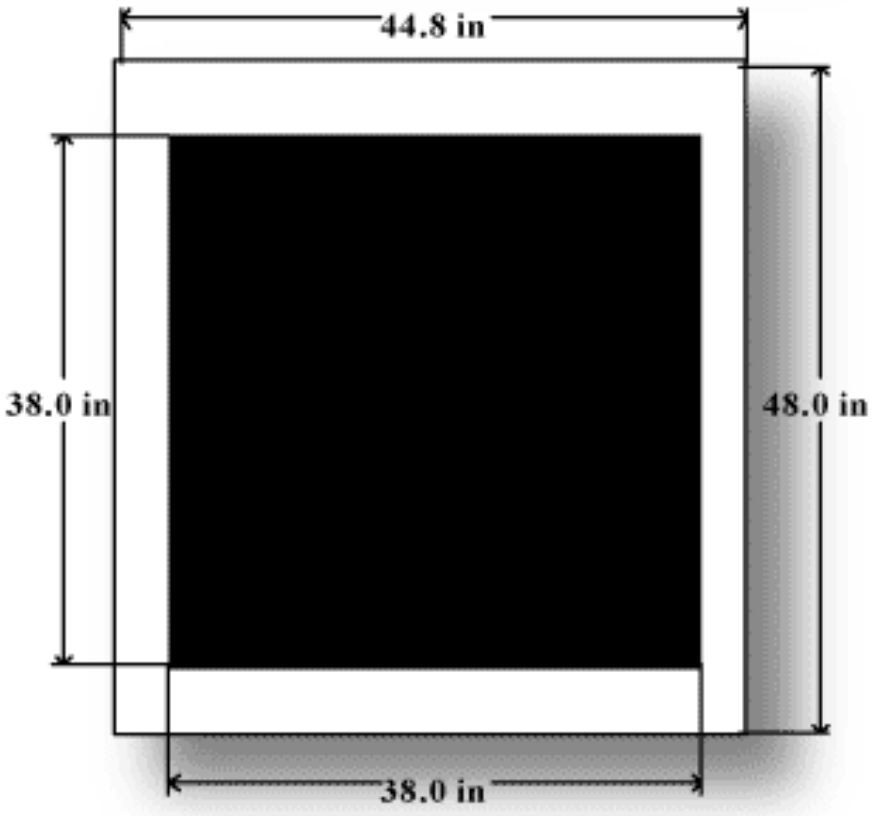
3.01 INLET FILTER SYSTEM

All costs for furnishing and installing the inlet filter system HR shall be included in the unit bid price. Periodic cleaning and new bags shall be paid for separately.

Handicap Stencil & Square (42 x 42 & 30H WC)

« Previous Product





BDE SPECIAL PROVISIONS
For the January 16 and March 6, 2015 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

	File Name	#		Special Provision Title	Effective	Revised
	80240	1	x	Above Grade Inlet Protection	July 1, 2009	Jan. 1, 2012
	80099	2		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
	80274	3		Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2013
	80192	4		Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	5		Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2013
	80241	6		Bridge Demolition Debris	July 1, 2009	
	5026I	7		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I	8		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I	9		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I	10		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
*	80310	11		Coated Galvanized Steel Conduit	Jan. 1, 2013	Jan. 1, 2015
*	80341	12		Coilable Nonmetallic Conduit	Aug. 1, 2014	Jan. 1, 2015
	80198	13		Completion Date (via calendar days)	April 1, 2008	
	80199	14		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293	15		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	April 1, 2014
	80294	16		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	April 1, 2014
	80311	17		Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
	80334	18		Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
	80277	19		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
	80261	20		Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80335	21		Contract Claims	April 1, 2014	
	80029	22		Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
	80265	23		Friction Aggregate	Jan. 1, 2011	Nov. 1, 2014
	80229	24		Fuel Cost Adjustment	April 1, 2009	July 1, 2009
	80329	25		Glare Screen	Jan. 1, 2014	
	80304	26		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
	80246	27	x	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
	80322	28	x	Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements	Nov. 1, 2013	Nov. 1, 2014
	80323	29	x	Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	Nov. 1, 2014
	80347	30		Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	
	80348	31		Hot-Mix Asphalt – Prime Coat	Nov. 1, 2014	
	80315	32		Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
*	80351	33		Light Tower	Jan. 1, 2015	
	80336	34		Longitudinal Joint and Crack Patching	April 1, 2014	
	80324	35		LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	Nov. 1, 2014
	80325	36		LRFD Storm Sewer Burial Tables	Nov. 1, 2013	Nov. 1, 2014
	80045	37		Material Transfer Device	June 15, 1999	Aug. 1, 2014
*	80342	38		Mechanical Side Tie Bar Inserter	Aug. 1, 2014	Jan. 1, 2015
	80165	39		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80337	40		Paved Shoulder Removal	April 1, 2014	
	80349	41		Pavement Marking Blackout Tape	Nov. 1, 2014	
	80298	42		Pavement Marking Tape Type IV	April 1, 2012	
	80254	43	x	Pavement Patching	Jan. 1, 2010	

	File Name	#		Special Provision Title	Effective	Revised
*	80352	44		Pavement Striping - Symbols	Jan. 1, 2015	
*	80353	45		Portland Cement Concrete Inlay or Overlay	Jan. 1, 2015	
	80338	46		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	April 1, 2014	
	80343	47		Precast Concrete Handhole	Aug. 1, 2014	
	80300	48		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
	80328	49		Progress Payments	Nov. 2, 2013	
	3426I	50		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	51		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80306	52		Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	April 1, 2014
	80350	53		Retroreflective Sheeting for Highway Signs	Nov. 1, 2014	
	80327	54		Reinforcement Bars	Nov. 1, 2013	
	80344	55		Rigid Metal Conduit	Aug. 1, 2014	
*	80354	56	X	Sidewalk, Corner, or Crosswalk Closure	Jan. 1, 2015	
	80340	57		Speed Display Trailer	April 2, 2014	
	80127	58		Steel Cost Adjustment	April 2, 2004	April 1, 2009
	80317	59		Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
*	80355	60		Temporary Concrete Barrier	Jan. 1, 2015	
	80301	61		Tracking the Use of Pesticides	Aug. 1, 2012	
*	80356	62		Traffic Barrier Terminals Type 6 or 6B	Jan. 1, 2015	
	20338	63		Training Special Provisions	Oct. 15, 1975	
	80318	64		Traversable Pipe Grate	Jan. 1, 2013	April 1, 2014
	80345	65		Underpass Luminaire	Aug. 1, 2014	
*	80357	66		Urban Half Road Closure with Mountable Median	Jan. 1, 2015	
	80346	67		Waterway Obstruction Warning Luminaire	Aug. 1, 2014	
	80288	68	X	Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2014
	80302	69		Weekly DBE Trucking Reports	June 2, 2012	
	80289	70		Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
	80071	71		Working Days	Jan. 1, 2002	

The following special provisions are in the 2015 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80292	Coarse Aggregate in Bridge Approach Slabs/Footings	Articles 1004.01(b) and 1004.02(f)	April 1, 2012	April 1, 2013
80303	Granular Materials	Articles 1003.04, 1003.04(c), and 1004.05(c)	Nov. 1, 2012	
80330	Pavement Marking for Bike Symbol	Article 780.14	Jan. 1, 2014	
80331	Payrolls and Payroll Records	Recurring CS #1 and #5	Jan. 1, 2014	
80332	Portland Cement Concrete – Curing of Abutments and Piers	Article 1020.13	Jan. 1, 2014	
80326	Portland Cement Concrete Equipment	Article 1103.03(a)(5)	Nov. 1, 2013	
80281	Quality Control/Quality Assurance of Concrete Mixtures	Recurring CS #31	Jan. 1, 2012	Jan. 1, 2014
80283	Removal and Disposal of Regulated Substances	Articles 669.01, 669.08, 669.09, 669.14, and 669.16	Jan. 1, 2012	Nov. 2, 2012
80319	Removal and Disposal of Surplus Materials	Article 202.03	Nov. 2, 2012	
80307	Seeding	Article 250.07	Nov. 1, 2012	
80339	Stabilized Subbase	Article 312.06	April 1, 2014	
80333	Traffic Control Setup and Removal Freeway/Expressway	Articles 701.18(l) and 701.19(a)	Jan. 1, 2014	

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

BDE SPECIAL PROVISIONS
For the January 15 and March 4, 2016 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

	File Name	#		Special Provision Title	Effective	Revised
	80240	1	X	Above Grade Inlet Protection	July 1, 2009	Jan. 1, 2012
	80099	2		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
*	80274	3		Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2016
	80192	4		Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	5		Bituminous Materials Cost Adjustments	Nov. 2, 2006	July 1, 2015
	80241	6		Bridge Demolition Debris	July 1, 2009	
	5026I	7		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I	8		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I	9		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I	10		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80360	11		Coarse Aggregate Quality	July 1, 2015	
	80310	12		Coated Galvanized Steel Conduit	Jan. 1, 2013	Jan. 1, 2015
	80341	13		Coilable Nonmetallic Conduit	Aug. 1, 2014	Jan. 1, 2015
	80198	14		Completion Date (via calendar days)	April 1, 2008	
	80199	15		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293	16		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	April 1, 2015
	80294	17		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	April 1, 2014
	80311	18		Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
	80334	19		Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
	80277	20		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
	80261	21		Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80335	22		Contract Claims	April 1, 2014	
	80029	23		Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2015
	80358	24		Equal Employment Opportunity	April 1, 2015	
	80265	25		Friction Aggregate	Jan. 1, 2011	Nov. 1, 2014
	80229	26		Fuel Cost Adjustment	April 1, 2009	July 1, 2015
	80329	27		Glare Screen	Jan. 1, 2014	
	80304	28		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
	80246	29	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
	80322	30	X	Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements	Nov. 1, 2013	Nov. 1, 2014
	80323	31	X	Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	Nov. 1, 2014
	80347	32		Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 1, 2015
	80348	33		Hot-Mix Asphalt – Prime Coat	Nov. 1, 2014	
	80315	34		Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
	80351	35		Light Tower	Jan. 1, 2015	
	80336	36		Longitudinal Joint and Crack Patching	April 1, 2014	
	80324	37		LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	April 1, 2015
	80325	38		LRFD Storm Sewer Burial Tables	Nov. 1, 2013	April 1, 2015
	80045	39		Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80342	40		Mechanical Side Tie Bar Inserter	Aug. 1, 2014	Jan. 1, 2015
	80165	41		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80361	42		Overhead Sign Structures Certification of Metal Fabricator	Nov. 1, 2015	
	80337	43		Paved Shoulder Removal	April 1, 2014	

File Name	#		Special Provision Title	Effective	Revised
80349	44		Pavement Marking Blackout Tape	Nov. 1, 2014	
80298	45		Pavement Marking Tape Type IV	April 1, 2012	
80254	46	X	Pavement Patching	Jan. 1, 2010	
80352	47		Pavement Striping - Symbols	Jan. 1, 2015	
80359	48		Portland Cement Concrete Bridge Deck Curing	April 1, 2015	
80353	49		Portland Cement Concrete Inlay or Overlay	Jan. 1, 2015	April 1, 2015
80338	50		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	April 1, 2014	
80343	51		Precast Concrete Handhole	Aug. 1, 2014	
80300	52		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
80328	53		Progress Payments	Nov. 2, 2013	
3426I	54		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157	55		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80306	56		Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	April 1, 2014
80350	57		Retroreflective Sheeting for Highway Signs	Nov. 1, 2014	
80327	58		Reinforcement Bars	Nov. 1, 2013	
80344	59		Rigid Metal Conduit	Aug. 1, 2014	
80354	60	X	Sidewalk, Corner, or Crosswalk Closure	Jan. 1, 2015	April 1, 2015
80340	61		Speed Display Trailer	April 2, 2014	
80127	62		Steel Cost Adjustment	April 2, 2004	July 1, 2015
* 80362	63		Steel Slag in Trench Backfill	Jan. 1, 2016	
80317	64		Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
80355	65		Temporary Concrete Barrier	Jan. 1, 2015	July 1, 2015
80301	66		Tracking the Use of Pesticides	Aug. 1, 2012	
80356	67		Traffic Barrier Terminals Type 6 or 6B	Jan. 1, 2015	
20338	68		Training Special Provisions	Oct. 15, 1975	
80318	69		Traversable Pipe Grate	Jan. 1, 2013	April 1, 2014
80345	70		Underpass Luminaire	Aug. 1, 2014	April 1, 2015
80357	71		Urban Half Road Closure with Mountable Median	Jan. 1, 2015	July 1, 2015
80346	72		Waterway Obstruction Warning Luminaire	Aug. 1, 2014	April 1, 2015
80288	73	X	Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2014
80302	74		Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
80289	75		Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
80071	76		Working Days	Jan. 1, 2002	

The following special provisions are in the 2015 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80292	Coarse Aggregate in Bridge Approach Slabs/Footings	Articles 1004.01(b) and 1004.02(f)	April 1, 2012	April 1, 2013
80303	Granular Materials	Articles 1003.04, 1003.04(c), and 1004.05(c)	Nov. 1, 2012	
80330	Pavement Marking for Bike Symbol	Article 780.14	Jan. 1, 2014	
80331	Payrolls and Payroll Records	Recurring CS #1 and #5	Jan. 1, 2014	
80332	Portland Cement Concrete – Curing of Abutments and Piers	Article 1020.13	Jan. 1, 2014	
80326	Portland Cement Concrete Equipment	Article 1103.03(a)(5)	Nov. 1, 2013	
80281	Quality Control/Quality Assurance of Concrete Mixtures	Recurring CS #31	Jan. 1, 2012	Jan. 1, 2014
80283	Removal and Disposal of Regulated Substances	Articles 669.01, 669.08, 669.09, 669.14, and 669.16	Jan. 1, 2012	Nov. 2, 2012
80319	Removal and Disposal of Surplus Materials	Article 202.03	Nov. 2, 2012	
80307	Seeding	Article 250.07	Nov. 1, 2012	
80339	Stabilized Subbase	Article 312.06	April 1, 2014	

File Name	Special Provision Title	New Location	Effective	Revised
80333	Traffic Control Setup and Removal Freeway/Expressway	Articles 701.18(l) and 701.19(a)	Jan. 1, 2014	

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

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ABOVE GRADE INLET PROTECTION (BDE)

Effective: July 1, 2009
Revised: January 1, 2012

Add the following to Article 280.02 of the Standard Specifications:

"(m) Above Grade Inlet Filter .....1081.15(j)"

Add the following paragraph after the second paragraph of Article 280.04(c) of the Standard Specifications:

"When above grade inlet filters are specified, they shall be of sufficient size to completely span and enclose the inlet structure. Prior to ordering materials, the Contractor shall determine the size of the various drainage structures being protected."

Add the following paragraph after the second paragraph of Article 280.08(d) of the Standard Specifications:

"Protection of drainage structures with rigid inlet protection assemblies will be paid for at the contract unit price per each for ABOVE GRADE INLET FILTERS."

Add the following to Article 1081.15 of the Standard Specifications:

"(j) Above Grade Inlet Filters. Above grade inlet filters shall consist of a rigid polyethylene frame covered with a fitted geotextile filter. A clean, used fitted filter and a used rigid polyethylene frame in good condition meeting the approval of the Engineer may be substituted for new materials. Materials for the above grade inlet filter assembly shall be according to the following.

(1) Frame Construction. Frame shall be constructed of a high density polyethylene copolymer. The design of the frame shall allow the structure to fit completely over the sewer inlet. The frame shall be a minimum of 26 in. (650 mm) tall and the top of the frame shall be designed with an opening to allow large volumes of water to pass through under high flow events. The frame shall conform to the following requirements:

Frame		
Material Property	Test Method	Value
Tensile Yield Strength	ASTM D 638	3600 psi (24.82 MPa)
Elongation at Break	ASTM D 638	>600%
Tensile-Impact Strength	ASTM D 1822	170 ft lb/sq in (230 J)
Brittleness Temperature	ASTM D 746	<-105°F (-76.11°C)
Environmental Stress Cracking	ASTM D 1693	>800 hours
Durometer Hardness,	ASTM D 2240	68

Shore A		

Vicat Softening Temperature	ASTM D 1525	254°F (123.33°C)
Deflection Temperature	ASTM D 648	157°F (69.44°C)
Coefficient of Linear Thermal Expansion	ASTM D 696	$7x10^{-5}$ in/in/°F ($12.6x10^{-5}$ m/m/°C)
Bulk Density	ASTM D 1895	37 lbs/cu ft (592.7 kg/cu m)

(2) Fitted Geotextile Filter. The sides of the fitted geotextile filter shall be constructed of 100 percent continuous polyester needle-punched fabric. The filter shall be fabricated to provide a direct fit to the frame. The top of the filter shall integrate a coarse screening to allow large volumes of water to pass through in the event of heavy flows. This screening shall have a minimum apparent opening of 1/2 in. (13 mm). The filter shall have integrated anti-buoyancy pockets capable of holding no less than 3.0 cu ft (0.08 cu m) of stabilization material. Each filter shall have a label with the following information sewn to or otherwise permanently adhered to the outside: manufacturer's name, product name, and lot, model or serial number. The fitted geotextile filter shall conform to the following requirements:

Fitted Geotextile Filter		
Material Property	Test Method	Minimum Avg. Roll Value
Weight	ASTM D 3776	3.0 oz/sq yd +/- 10% (71.1 grams/sq m)
Grab Tensile Strength	ASTM D 4632	80 lb min. (36.29 kg)
Grab Tensile Elongation	ASTM D 4632	50%
Bursting Strength	ASTM D 3786	150 psi min. (1.03 MPa)
Puncture Resistance	ASTM D 4833	50 lb min. (22.68 kg)
Trapezoid Tearing Strength	ASTM D 4533	30 lb min. (13.61 kg)
Apparent Opening Size	ASTM D 4751	Sieve No. 70 (0.212 mm)
Permittivity	ASTM D 4491	2.0/sec
Water Permeability	ASTM D 4491	102 gal/min/sq ft (4150 liter/min/sq m)
UV Resistance	ASTM D 4355	70% at 500 hours

(3) Certification. The manufacturer shall furnish a certificate with each shipment of above grade inlet filter assemblies, stating the amount of product furnished and that the material complies with these requirements."

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 2 in. (50 mm), from each pavement edge. (i.e. for a 4 in. (100 mm) lift the near edge of the density gauge or core barrel shall be within 4 in. (100 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 – 96.0%	90.0%
IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4%	90.0%
SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

HOT-MIX ASPHALT – MIXTURE DESIGN COMPOSITION AND VOLUMETRIC REQUIREMENTS (BDE)

Effective: November 1, 2013
Revised: November 1, 2014

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

"The minimum compacted thickness of each lift shall be according to Article 406.06(d)."

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

"The mixture composition used shall be IL-19.0."

Revise Article 355.05(a) of the Standard Specifications to read:

"(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0."

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures."

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
IL-9.5, IL-9.5L	1 1/4 (32)
SMA-12.5	1 1/2 (38)
IL-19.0, IL-19.0L	2 1/4 (57)"

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

"Test strip mixture will be evaluated at the contract unit price according to the following."

Revise Article 406.14(a) of the Standard Specifications to read:

"(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price."

Revise Article 406.14(b) of the Standard Specifications to read:

"(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department's test results, the mixture will not be paid for and shall be removed at the Contractor's expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read:

"(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department's test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

"Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement."

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise Article 1003.03(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an Ndesign = 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, Ndesign = 90 the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, Ndesign = 50 or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Remove footnote 3/ from the tables and at the end of the tables in Article 1004.01(c) of the Standard Specifications.

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 [1/] CA 16 and/or CA 13 CA 16
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 [1/] CA 16

1/ CA 16 or CA 13 may be blended with the gradations listed."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA)[1/]; HMA Shoulders[2/]

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"**1030.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]								
Sieve Size	IL-19.0 mm		SMA 12.5 [4/]		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)								
1 in. (25 mm)		100						
3/4 in. (19 mm)	90	100		100				
1/2 in. (12.5 mm)	75	89	90	99		100		100
3/8 in. (9.5 mm)			50	85	90	100		100
#4 (4.75 mm)	40	60	20	40	32	69	90	100
#8 (2.36 mm)	26	42	16	24 [5/]	32	52 [2/]	70	90
#16 (1.18 mm)	15	30			10	32	50	65
#50 (300 µm)	6	15			4	15	15	30
#100 (150 µm)	4	9			3	10	10	18
#200 (75 µm)	3	6	8.0	11.0 [3/]	4	6	7	9
Ratio Dust/Asphalt Binder		1.0				1.0		1.0 [3/]

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ The maximum percent passing the #635 (20 µm) sieve shall be ≤ 3 percent.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent."

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise the table in Article 1030.04(b)(1) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS High ESAL				
	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
Ndesign	IL-19.0	IL-9.5	IL-4.75[1/]	
50	13.5	15.0	18.5	65 – 78 [2/]
70				65 - 75
90				

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 76-83 percent"

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS Low ESAL				
Mixture Composition	Design Compactive Effort	Design Air Voids Target %	VMA (Voids in the Mineral Aggregate), % min.	VFA (Voids Filled with Asphalt Binder), %
IL-9.5L	N_{DES} =30	4.0	15.0	65-78
IL-19.0L	N_{DES} =30	4.0	13.5	N/A"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

ESALs (million)	Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
≤ 10	50	4.0	16.0	75 – 80
> 10	80	4.0	17.0	75 – 80"

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 µm) No. 200 (75 µm)	1 washed ignition oven test on the mix per half day of production Note 3.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 1.	1 per half day of production	Illinois-Modified AASHTO T 308
VMA Note 2.	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Test Method See Manual of Test Procedures for Materials
Air Voids Bulk Specific Gravity of Gyratory Sample Note 4.	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO T 312
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO T 209
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	

Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 2. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.

Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

"Parameter	High ESAL Mixture Low ESAL Mixture
Ratio Dust/Asphalt Binder	0.6 to 1.2
Moisture	0.3 %"

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

"(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

CONTROL LIMITS						
Parameter	High ESAL Low ESAL		SMA		IL-4.75	
	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: 1/						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
No. 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
No. 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
No. 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content No. 200 (75 µm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % 2/	-0.5 % 2/	-0.7 % 2/	-0.5 % 2/	-0.7 % 2/	-0.5 % 2/

1/ Based on washed ignition oven

2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS		
Mixture Composition	Parameter	Individual Test
IL-4.75	Ndesign = 50	93.0 - 97.4 % [1/]
IL-9.5	Ndesign = 90	92.0 - 96.0 %
IL-9.5,IL-9.5L	Ndesign < 90	92.5 - 97.4 %
IL-19.0	Ndesign = 90	93.0 - 96.0 %
IL-19.0, IL-19.0L	Ndesign < 90	93.0 [2/]- 97.4 %
SMA	Ndesign = 50 & 80	93.5 - 97.4 %

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART REQUIREMENTS	High ESAL, Low ESAL, SMA & IL-4.75
Gradation [1/ 3/]	% Passing Sieves: 1/2 in. (12.5 mm) [2/] No. 4 (4.75 mm) No. 8 (2.36 mm) No. 30 (600 µm)
Total Dust Content [1/]	No. 200 (75 µm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific Gravity of Mixture
	Voids
	Density
	VMA

1/ Based on washed ignition oven.

2/ Does not apply to IL-4.75.

3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

80322

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)

Effective: November 1, 2013
Revised: November 1, 2014

Description. This special provision provides the requirements for Hamburg Wheel and tensile strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production. This special provision also provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

Mix Design Testing. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324 Hamburg Wheel Test

AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (Illinois Modified AASHTO T 324) and the Tensile Strength Test (Illinois Modified AASHTO T 283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make necessary changes to the mix and provide passing Hamburg Wheel and tensile strength test results from a private lab. The Department will verify the passing results.

All new and renewal mix designs shall meet the following requirements for verification testing.

(1) Hamburg Wheel Test Criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]

PG Grade	Number of Passes
PG 58-xx (or lower)	5,000
PG 64-xx	7,500
PG 70-xx	15,000
PG 76-xx (or higher)	20,000

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 µm)	*
No. 200 (75 µm)	*
Asphalt Binder Content	± 0.3 %

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL Mixtures."

System for Hydrated Lime Addition. Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

Basis of Payment. Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the

HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

80323

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

" In addition to the traffic control and protection shown elsewhere in the contract for single lane, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

80254

SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)

Effective: January 1, 2015

Revise the first sentence of Article 1106.02(m) of the Supplemental Specifications to read:

> "The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides."

80354

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012
Revised: November 1, 2014

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(13) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

STATUS OF UTILITIES TO BE ADJUSTED
Effective: January 30, 1987
Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
At&t	Telecom	None	
Comcast	Cable	None	
Com Ed	Electric	None	
NiCor	Gas	None	

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013
Revised: November 1, 2014

1) Design Composition and Volumetric Requirements

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

"The minimum compacted thickness of each lift shall be according to Article 406.06(d)."

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

"The mixture composition used shall be IL-19.0."

Revise Article 355.05(a) of the Standard Specifications to read:

"(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0."

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures."

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)
SMA-12.5	2 (50)
IL-19.0, IL-19.0L	2 1/4 (57)"

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

"Test strip mixture will be evaluated at the contract unit price according to the following."

Revise Article 406.14(a) of the Standard Specifications to read:

"(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price."

Revise Article 406.14(b) of the Standard Specifications to read:

"(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department's test results, the mixture will not be paid for and shall be removed at the Contractor's expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read:

"(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department's test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

"Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement."

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise Article 1003.03(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an Ndesign = 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, Ndesign = 90 the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, Ndesign = 50 or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 [1/] CA 16, CA 13[3/]
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 [1/] CA 16
SMA[2/]	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13[3/], CA14 or CA16 CA16, CA 13[3/]

1/ CA 16 or CA 13 may be blended with the gradations listed.

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA)[1/]; HMA Shoulders[2/]

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"**1030.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive

shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]										
Sieve Size	IL-19.0 mm		SMA [4/] IL-12.5 mm		SMA [4/] IL-9.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)										
1 in. (25 mm)		100								
3/4 in. (19 mm)	90	100		100						
1/2 in. (12.5 mm)	75	89	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 [5/]	16	32 [5/]	34 [6/]	52 [2/]	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 [3/]	7.5	9.5 [3/]	4	6	7	9 [3/]
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ The maximum percent passing the #635 (20 µm) sieve shall be ≤ 3 percent.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

<table>
<tr><td colspan="5">VOLUMETRIC REQUIREMENTS
High ESAL</td></tr>
<tr><td></td><td colspan="3">Voids in the Mineral Aggregate (VMA),
% minimum</td><td rowspan="2">Voids Filled with Asphalt Binder (VFA),
%</td></tr>
<tr><td>Ndesign</td><td>IL-19.0</td><td>IL-9.5</td><td>IL-4.75[1/]</td></tr>
<tr><td>50</td><td rowspan="3">13.5</td><td rowspan="3">15.0</td><td>18.5</td><td>65 – 78 [2/]</td></tr>
<tr><td>70</td><td rowspan="2"></td><td rowspan="2">65 - 75</td></tr>
<tr><td>90</td></tr>
</table>

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 72-85 percent"

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS Low ESAL				
Mixture Composition	Design Compactive Effort	Design Air Voids Target %	VMA (Voids in the Mineral Aggregate), % min.	VFA (Voids Filled with Asphalt Binder), %
IL-9.5L	N_{DES} =30	4.0	15.0	65-78
IL-19.0L	N_{DES} =30	4.0	13.5	N/A"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements SMA [1/]			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 [4/]	3.5	17.0 [2/] 16.0 [3/]	75 - 83

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ Blending of different types of aggregate will not be permitted. For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Delete last sentence of the second paragraph of Article 1102.01(a) (13) a.

Add to second paragraph in Article 1102.01 (a) (13) a.:

"As an option, collected bag-house dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough available for the production of the SMA mix for the entire project and 2) a mix design was prepared with collected bag-house dust."

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 µm) No. 200 (75 µm)	1 washed ignition oven test on the mix per half day of production Note 3.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 1.	1 per half day of production	Illinois-Modified AASHTO T 308
VMA Note 2.	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
Air Voids Bulk Specific Gravity of Gyratory Sample Note 4.	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO T 312
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons: 1 per half day of production	Illinois-Modified AASHTO T 209
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	

Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 2. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.

Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

"Parameter	High ESAL Mixture Low ESAL Mixture
Ratio Dust/Asphalt Binder	0.6 to 1.2
Moisture	0.3 %"

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

"(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

"CONTROL LIMITS						
Parameter	High ESAL		SMA		IL-4.75	
	Individual Test	Moving Avg. of 4	Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: 1/						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
No. 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
No. 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
No. 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content No. 200 (75 µm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % 2/	-0.5 % 2/	-0.7 % 2/	-0.5 % 2/	-0.7 % 2/	-0.5 % 2/

1/ Based on washed ignition oven

2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS		
Mixture Composition	Parameter	Individual Test
IL-4.75	Ndesign = 50	93.0 - 97.4 % 1/
IL-9.5	Ndesign = 90	92.0 - 96.0 %
IL-9.5,IL-9.5L	Ndesign < 90	92.5 - 97.4 %
IL-19.0	Ndesign = 90	93.0 - 96.0 %
IL-19.0, IL-19.0L	Ndesign < 90	93.0 2/- 97.4 %
SMA	Ndesign = 80	93.5 - 97.4 %

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART REQUIREMENTS	High ESAL, Low ESAL, SMA & IL-4.75
Gradation [1/ 3/]	% Passing Sieves: 1/2 in. (12.5 mm) [2/] No. 4 (4.75 mm) No. 8 (2.36 mm) No. 30 (600 µm)
Total Dust Content [1/]	No. 200 (75 µm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific Gravity of Mixture
	Voids
	Density
	VMA

1/ Based on washed ignition oven.

2/ Does not apply to IL-4.75.

3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

2) Design Verification and Production

Description. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production.

Mix Design Testing. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324 Hamburg Wheel Test

AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the

Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1)Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 µm)	*
No. 200 (75 µm)	*
Asphalt Binder Content	± 0.3 %

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL Mixtures."

Add the following to Article 1030.06 of the Standard Specifications:

"(c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The

requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.
The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria are being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's G_{mb}."

Basis of Payment.

Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For all mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

Stormwater Pollution Prevention Plan (SWPPP)

for:

City of Wheaton
2016 Road, Sewer, and Water Rehabilitation Program
Wheaton, IL 60187
See attached map for street locations

Operator(s):

City of Wheaton
303 W. Wesley Street
Wheaton, IL 60187
Engineering Department Phone: (630) 260-2065
Fax: (630) 260-2195

SWPPP Contact(s):

City of Wheaton Engineering Department
Kristopher Dunn
303 W. Wesley Street
Wheaton, IL 60187
Phone: (630) 260-2870
Email: kdunn@wheaton.il.us

SWPPP Preparation Date:

02 / 05 / 2016

Estimated Project Dates:

Project Start Date: 0 4 / 0 1 / 2 0 1 6
Project Completion Date: 0 9 /09 / 2 0 1 6

Section 1: Site Description

A. Project Location

The project is located entirely within the City of Wheaton on various streets as shown on the attached map.

B. Project Construction Activity

The project consists of watermain replacement, sanitary sewer point repair and/or replacement, storm sewer point repair and/or replacement, curb and gutter repair and/or replacement, sidewalk replacement, pavement reconstruction and/or pavement rehabilitation, pavement marking, landscaping, and all collateral work necessary to complete the project as shown on the plans.

C. Description of Sequence of Major Activities (per street)

a. Install erosion control / Best Management Practices as needed for the type of construction called for in the project plans.
b. Install all underground utilities as called for in the project plans.
   No soil stockpiles are allowed to remain in the Right of Way
c. Temporary erosion control shall be initiated as soon as practicable in portions of the site where construction activities have temporarily ceased. Temporary erosion control shall be completed by no more than 7 days after the construction activity in that portion of the site has temporarily ceased unless construction will reoccur within a period of 14 calendar days after temporarily ceased.
d. Replace curb and gutter.
e. Replace sidewalk.
f. Reconstruct, Rehabilitate, or Resurface pavement.
g. Landscaping / Permanent Seeding shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
h. Install pavement marking

D. Soils

Soils
Based on the NRCS-USDA Soil Survey of DuPage County, the following soils are present within the project area:

3107A—Sawmill silty clay loam, 0 to 2 percent slopes: A poorly drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

849A—Milford-Martinton complex, 0 to 2 percent slopes: A poorly drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

854B—Markham-Ashkum-Beecher complex, 1 to 6 percent slopes: A moderately well to poorly drained complex with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

805B—Orthents, clayey, undulating: A moderately well drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

531B—Markham silt loam, 2 to 4 percent slopes: A moderately well drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

531C2—Markham silt loam, 4 to 6 percent slopes, eroded: A moderately well drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

232A—Ashkum silty clay loam, 0 to 2 percent slopes: A poorly drained soil with moderate susceptibility to water erosion and moderate susceptibility to wind erosion.

146A—Elliott silt loam, 0 to 2 percent slopes: A somewhat poorly drained soil with moderate susceptibility to water erosion and slight susceptibility to wind erosion.

903A—Muskego & Houghton mucks, 0 to 2 percent slopes: A very poorly drained soil with slight susceptibility to water erosion and moderate susceptibility to wind erosion.

69A—Milford silty clay loam, 0 to 2 percent slopes: A poorly drained soil with slight susceptibility to water erosion and moderate susceptibility to wind erosion.

189A—Martinton silt loam, 0 to 2 percent slopes: A somewhat poorly drained soil with slight susceptibility to water erosion and slight susceptibility to wind erosion.

E. Drainage Pattern / Receiving Waters

The project area consists entirely of developed public right of way. The drainage pattern for the project area is through open roadside ditch or underground storm sewers to Winfield Creek, Spring Brook, Rott Creek, or Willoway Creek. The project will not change any of the existing drainage patterns.

F. Construction Site Estimates

The total combined area of the project street Right of Way is 42.4 acres.
The total combined area of exposed earth by the project is 0.38 acres with the largest contiguous area of exposed earth by the project being 0.21 acres.
The percent impervious and runoff coefficient for the project area will be the same before and after the project as no impervious area is to be added to this rehabilitation project.

G. Site Features and Sensitive Areas to be Protected

- Parkway trees are to be preserved where practicable.
- Any floodplain in the project area shall have no material stockpiles, no equipment storage, no material storage, and no fill placed within the limits of the current FEMA mapped floodplain.

H. Potential Sources of Pollution

- Sediment (excavation, vehicular tracking, milling, landscaping operations)
- Concrete Truck Waste
- Concrete Curing Compounds
- Solid Waste / Debris
- Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
- Concrete
- Waste water from cleaning construction equipment
- Antifreeze / coolants
- Sanitary stations / port-a-potty's
- Fertilizers

Section 2: Erosion and Sediment Control BMPs

A. Stabilization Practices

Temporary Stabilization – Areas where earth has been exposed within the project limits where construction will cease for more than 7 days shall be stabilized using Erosion Control Blanket in substantial conformance with the Illinois Urban Manual. Where construction activity will resume in such an area within 14 days from when construction temporarily ceased temporary stabilization will not be required.

Permanent Stabilization – Areas where construction activity has permanently ceased shall be permanently stabilized as soon as possible but within no more than 14 days after construction has ceased. Periodic inspection by City of Wheaton personnel of permanently stabilized areas will occur until 70% vegetation has been achieved. Any stabilization failures will be brought to the attention of the contractor and repaired immediately.

B. Perimeter Erosion Barrier (Silt Fence)

Silt Fence shall be installed before any work in the project area. Silt fencing is required in all locations where there is slope away from the street towards private property and the plans require work that will result in earth exposure. Installation of Silt Fence shall follow Standard Practice as outlined in the Illinois Urban Manual in all locations as outlined in the plans.

C. Storm Sewer Sediment Control Inlet Filter (Silt Basket)

Silt Baskets shall be installed before any work that will result in earth exposure. Silt Baskets are required in all storm sewer inlets in the project area where work will result in exposed earth and in the first downstream inlet(s) from such a project area. City of Wheaton personnel will perform weekly inspections of all installed silt baskets and notify the contractor when maintenance is required. Silt Baskets are required to remain installed until all exposed earth has achieved 70% permanent or temporary vegetative cover or all exposed earth is covered by Erosion Control Blanket.

D. Dewatering Sediment Control Pump Filter Bags

All dewatering operations shall discharge through a pump filter bag.

Section 3: Good Housekeeping BMPs

A. Concrete Washout Facility

Concrete waste or washout is not allowed to reach a storm water drainage system or watercourse. Temporary concrete washout facilities shall be constructed as per the specifications in the Illinois Urban Manual. The temporary concrete washout facility shall be of sufficient volume to completely contain all liquid and concrete waste materials including enough capacity for anticipated levels of rainwater. The temporary concrete washout facility shall be lined with a minimum of 30 mil plastic sheeting. Temporary concrete washout facilities shall not be filled more than 66% of the total capacity. Temporary concrete washout facilities shall be disposed of immediately if more than 66% of the total capacity is reached, including rainwater.

B. Waste Management

No solid materials, including building materials, shall be discarded to Water of the State, except as authorized by a Section 404 permit. All waste materials shall be collected and removed off site. Construction waste material is not to be buried on site. Hazardous material shall not be stored on site. Any hazardous waste should be disposed of in the manner specified by local or State regulation or by the manufacturer.

C. Material Storage

Materials or contaminants shall be stored in a manner that minimizes the potential to discharge into a storm water drainage system or watercourse. Petroleum products shall be stored in a tightly sealed container. All materials shall be stored in their original containers with legible labels. Any release of chemicals / contaminants shall be immediately cleaned up and disposed of in the manner specified by local or State regulation or by the manufacturer.

D. Spill Prevention

The construction site shall have the capacity to manage, contain, and clean up any contaminants or oil caused by a spill should they occur. Spills shall be immediately cleaned up in accordance to the MSD sheets and shall not be buried on site or washed into a storm water drainage system or watercourse. BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.

Section 4: Allowable Non-Stormwater Discharge Management

A. Except for flows from fire fighting activities, sources of non-stormwater that may be combined with storm water discharges associated with construction activity in this SWPPP are as follows:
    - Watering for Dust Control
    - Potable water including hydrant and waterline flushing
    - Uncontaminated air conditioning condensate
    - Uncontaminated compressor condensate
    - Uncontaminated groundwater
    - Landscape Irrigation

B. The following Best Management Practices for allowable non-stormwater discharge shall be followed:
    - All hydrant and waterline flushing shall not be flushed directly onto an exposed earth area. Hoses should be used to direct the flow onto a stabilized area. A stabilized area where runoff will not flow across an exposed area should be used where possible.
    - Erosion from landscape irrigation shall be kept to a minimum.

Section 5: Inspections

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been permanently stabilized, structural control measures, and good housekeeping BMPs. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

B. Based on the results of the inspection, the description of potential pollutant sources identified in Section 1 above and pollution prevention measures identified in Section 2 & 3 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.

C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section IV (B) shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

Section 6: SWPPP Operator Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Project: 2016 Road, Sewer, and Water Rehabilitation Program

Permit #: ILR400470

_____ _____

Signature of Operator Date

_____

Printed Name of Operator

CONTRACTOR CERTIFICATION

STORMWATER POLLUTION PREVENTION PLAN

Project Number: 16-00114-00-FP

Project Title: 2016 Road, Sewer, and Water Rehabilitation Program

Operator(s): City of Wheaton

As a contractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the Engineering Department in City Hall. Each contractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

City, State, Zip Code: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Contractor Signature: _____

Printed Name / Title: _____

Date: _____

CITY OF WHEATON STORMWATER POLLUTION PREVENTION INSPECTION FORM

Site Name:	Inspector:	Date:

Stormwater Plan Type: ☐ Simple Plan ☐ Full SWPP → ☐ SWPP Onsite / ☐ NOI Onsite

Reason for Inspection: ☐ Weekly ☐ > 1/2 " Rain ☐ Random ☐ Complaint

Construction Entrance Installed Correctly? ☐ Yes ☐ No ☐ N/A

Problems? ☐ Mud in Stones ☐ Sediment Tracked Offsite ☐ Other_____

Action Needed_____

_____

Silt Fence Installed Correctly? (Entire Site) ☐ Yes ☐ No ☐ N/A

Problems? ☐ Fabric Not Trenched ☐ Broken Stakes ☐ Fabric Down/Cut ☐ Not Installed Where Needed

☐ Removed Before Permanent Stabilization ☐ Other _____

Action Needed_____

_____

Inlet Protection / Culvert Protection Installed Correctly? (Entire Site) ☐ Yes ☐ No ☐ N/A

Problems? ☐ Runoff Ponding ☐ Hole in Fabric ☐ Basket Full ☐ Not Installed Where Needed

☐ Other _____

Action Needed_____

_____

Concrete Washout Area in Place? ☐ Yes ☐ No ☐ N/A

Problems? ☐ Washout Area Leaking ☐ Washout over 2/3 Full ☐ Other _____

Action Needed_____

_____

Sediment Basin / Sediment Trap / Rock Check Dam Installed Correctly? ☐ Yes ☐ No ☐ N/A

Problems? ☐ Runoff Not Directed Correctly ☐ Downstream Not Stabilized ☐ Fabric Down/Cut

☐ Over 40% Full ☐ Emergency Overflow Incorrect ☐ Other _____

Action Needed_____

_____

Temporary Stabilization Installed in All Dormant Areas? (after 7 days) ☐ Yes ☐ No ☐ N/A

Problems? ☐ Stockpile ☐ Entire Site ☐ Erosion Blanket ☐ Other _____

Action Needed_____

_____

Permanent Stabilization Completed? (Entire Site) ☐ Yes ☐ No ☐ N/A

Problems? ☐ No Stabilization Method ☐ Vegetation not 70% ☐ Other _____

Action Needed_____

_____

Violations and Corrective Action

Site in Compliance with NPDES Permit and/or DuPage County and City Ordinances? ☐ Yes ☐ No

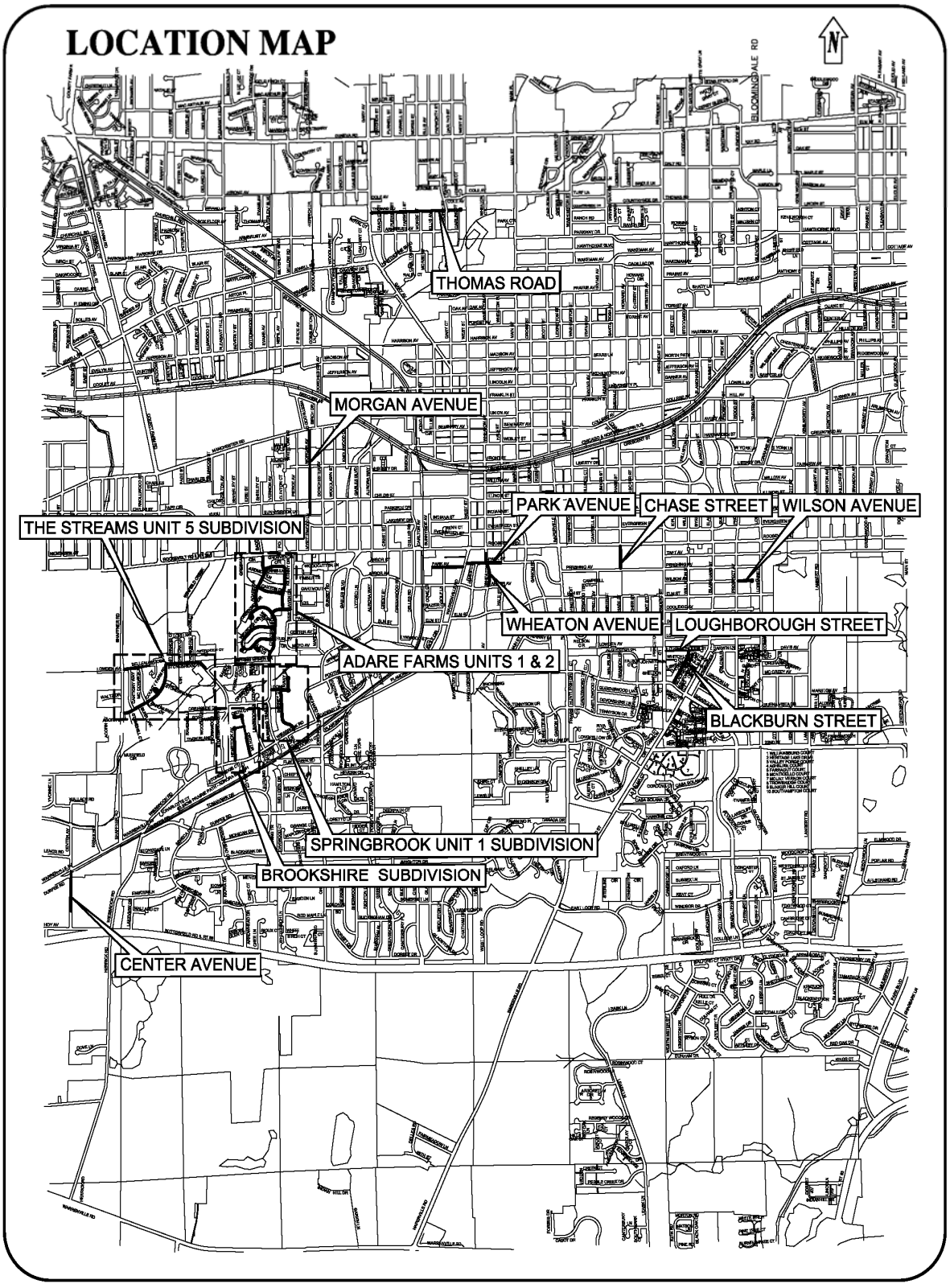
Corrective Action Required (Verbal On Site) ☐ Yes ☐ No

Corrective Action Required (Send Letter) ☐ Yes ☐ No

Sediment Discharge from Site ☐ Yes ☐ No - Document Incidence of Non-Compliance (ION) ☐ Yes ☐ No

Stop Work Order ☐ Yes ☐ No

Penalty Action ☐ Yes ☐ No



Length: 27,984 feet (5.3 miles)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
CONSTRUCTION SITE STORM WATER DISCHARGE
INCIDENCE OF NON-COMPLIANCE (ION)

PERMITTEE NAME:	**LAST**			**FIRST**			**MIDDLE INITIAL**							**AREA CODE + PHONE NUMBER:**						
STREET:								**CITY:**						**ST:**		**ZIP:**				
CONSTRUCTION SITE NAME:																				
COUNTY:										**SECTION:**				**TOWNSHIP:**				**RANGE:**		
NPDES PERMIT NUMBER:	**I**	**L**	**R**	**1**	**0**					**LATITUDE:**	**DEG.**	**MIN.**	**SEC.**	**LONGITUDE:**	**DEG.**	**MIN.**	**SEC.**			

CAUSE OF NON-COMPLIANCE:

ACTIONS TAKEN TO PREVENT ANY FURTHER NON-COMPLIANCE:

ENVIRONMENTAL IMPACT RESULTING FROM THE NON-COMPLIANCE:

ACTIONS TAKEN TO REDUCE THE ENVIRONMENTAL IMPACT RESULTING FROM THE NON-COMPLIANCE:

SIGNATURE: _____ **TITLE:** **DATE:**

MAIL COMPLETED FORM TO:

(DO NOT SUBMIT ADDITIONAL DOCUMENTATION UNLESS REQUESTED)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION #19
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

FOR OFFICE USE ONLY

LOG:
PERMIT NO. ILR10___ ___ ___ ___
DATE:

Information required by this form must be provided to comply with 415 ILCS 5/39(1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2105
WPC 624 Rev. 6/98)

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the Plan. Please adhere to the following guidelines.

< **Submit original, photocopy or facsimile copies. Facsimile and/or photo copies should be followed-up with an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the lower right hand corner.**

< **Submit completed forms to:**

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276

< **Reports must be typed or printed legibly and signed.**

< **Use the formats given in the following examples for correct form completion.**

Example		**Format**
SECTION	**12**	**1 or 2 numerical digits**
TOWNSHIP	**12N**	**1 or 2 numerical digits followed by "N" or "S"**
RANGE	**12W**	**1 or 2 numerical digits followed by "E" or "W"**

TEMPORARY CONCRETE WASHOUT FACILITY

(no.)
CODE 954

(Source: Illinois Urban Manual Technical Committee)

DEFINITION

A device used to manage liquid and solid wastes from concrete usage on construction sites.

PURPOSE

The purpose of this practice is to control concrete wastes to prevent both on-site and off-site pollution.

CONDITIONS WHERE THIS PRACTICE APPLIES

This practice applies on any construction site where concrete is used.

CRITERIA

The following steps shall be taken to effectively control concrete wastes.

1. Perform washout of concrete mixer trucks in designated areas only.

2. Each facility shall have appropriate signage to inform concrete equipment operators of the proper washout locations.

3. Each facility shall be located in an area protected from possible damage from construction traffic and have a stabilized access to prevent tracking onto streets.

4. Washout facilities shall be located on level ground a minimum of 15 m (50 ft) from storm drain inlets and all open drainage facilities.

5. Temporary concrete washout facilities shall be supplied in sufficient quantity and size to manage all liquid and solid wastes generated by washout operations.

6. Washout water from low volume facilities shall be allowed to evaporate and not be discharged into the environment.

7. Washout water from high volume facilities shall be removed with a vacuum truck and taken back to the batch plant. Washout water shall not be discharged into the environment.

8. Solidified concrete waste from washout facilities shall be considered Clean Construction or Demolition Debris (CCDD) as per the Illinois Environmental Protection Act (415 ILCS 5) and disposed of in accordance to the Act.

9. Each facility shall be inspected daily to ensure the container is not leaking or nearing two-thirds capacity of either solids, liquids or a combination of both.

PREFABRICATED CONCRETE WASHOUT FACILITIES

1. Prefabricated facilities can be any water tight unit designed to contain concrete slurry and solids.

2. Prefabricated facilities shall be of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

TEMPORARY CONCRETE WASHOUT FACILITIES “ABOVE GRADE”

1. Above grade washout facilities shall be constructed with a minimum length and minimum width of 3m (10 ft) but of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

2. The walls of the above grade facilities may be constructed of straw bales, barrier walls or earthen berms. If straw bales are used, they shall be entrenched 3” into the earth, butted tightly end to end and staked in place using 2” x 2” x 4’ wooden stakes. If barrier walls are used, they shall be butted tightly end to end.

3. The facility shall be lined with a 30-mil polyethylene liner and secured using sand bags, 6” wire staples, or other anchors. The plastic lining material shall be free of holes and tears and must be impermeable.

TEMPORARY CONCRETE WASHOUT FACILITIES “BELOW GRADE”

1. Below grade washout facilities shall be constructed with a minimum length and minimum width of 3m (10 ft) but of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

2. The soil base shall be prepared free of rocks or debris that may cause tears or holes in the plastic lining material.

3. The facility shall be lined with a 30-mil polyethylene liner and secured using sand bags, 6” wire staples or other anchors. The plastic lining material shall be free of holes and tears and must be impermeable.

REMOVAL OF TEMPORARY WASHOUT FACILITIES

1. When temporary concrete washout facilities are no longer required for the work, the facilities shall be removed from the site of the work.

2. Holes, depressions or other ground disturbances caused by removal of the temporary concrete washout facilities shall be restored to the satisfaction of the engineer.

CONSIDERATIONS

Concrete washout wastewater is corrosive and toxic. The ph of concrete can be over 12 which is the same as many household cleaners. These toxins can clog fish gills, reducing their oxygen and causing death. These ph levels can also be long lasting in the soil. Plants may become stunted or refuse to grow in these soils. Restoration of ground surface surrounding washout facilities may require removal and replacement of top soils, nutrients and alkaline tolerant seed mixture.

Concrete washout water may be considered to be a hazardous waste due to the high pH (characteristic hazard waste due to corrosiveness). Check with local regulatory authorities to ensure it is disposed of in accordance with local, state and Federal regulations.

If access to concrete washout facilities is off pavement, vehicle tracking control may be required.

If larger one day pours are scheduled, multiple facilities may be required or constant maintenance will be necessary throughout the day.

Above grade units shall not exceed a size in which the outside barrier chosen (straw bales, barrier walls, earthen berm) becomes structurally unsound. If the need for a larger facility arises, a below grade facility may be necessary.

If the project is located in areas with potentially high water tables, above grade or prefabricated facilities should be used to prevent leaching of wastewater into groundwater.

As with any other harmful material storage facilities (e.g. petroleum products, concrete curing compounds, etc.) a temporary cover may be necessary to deter rain water from filling the facility and allowing wash water and/or slurry to discharge into the environment.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use.

Standard drawing IL-654 TEMPORARY CONCRETE WASHOUT FACILITY may be used as the plan sheet.

OPERATION AND MAINTENANCE

1. Temporary concrete washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 100 mm (4 in.) for above grade facilities and 300 mm (12 in.) for below grade facilities. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete or slurry and returning the facilities to a functional condition.

2. Existing facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is two-thirds full.

3. Temporary concrete washout facilities shall be inspected for damage (e.g. tears in plastic liner, missing sand bags, etc.). Damaged facilities shall be repaired promptly.

REFERENCES

State of California Department of Transportation, 2003. Construction Site Best Management Practice (BMP) Field Manual and Troubleshooting Guide. CA

California Stormwater Quality Association, 2003. Construction Handbook. CA

IL Urban Manual Technical Committee, July 2008

urbst954.doc

ADJUSTMENTS AND RECONSTRUCTIONS
Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)

Effective: November 1, 2011

Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of $\pm$ 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

"(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) …… 1030
(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)"

Revise Article 603.07 of the Standard Specifications to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)

Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

FRICTION AGGREGATE (D-1)

Effective: January 1, 2011
Revised: July 24, 2015

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

"(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.

a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).

b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"**1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete

Use	Mixture	Aggregates Allowed
HMA Low ESAL	Stabilized Subbase or Shoulders	<u>Allowed Alone or in Combination</u> [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[1/] Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	<u>Allowed Alone or in Combination</u> [5/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete[3/]
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	<u>Allowed Alone or in Combination</u> [5/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	<u>Allowed Alone or in Combination</u> [5/]: Crushed Gravel Carbonate Crushed Stone (other than Limestone)[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
		<u>Other Combinations Allowed:</u> *Up to...* — *With...* 25% Limestone — Dolomite

Use	Mixture	Aggregates Allowed	
		50% Limestone	Any Mixture D aggregate other than Dolomite
		75% Limestone	Crushed Slag (ACBF) or Crushed Sandstone
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> [5/]: Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.	
		<u>Other Combinations Allowed:</u>	
		Up to...	*With...*
		50% Dolomite[2/]	Any Mixture E aggregate
		75% Dolomite[2/]	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone
		75% Crushed Gravel[2/] or Crushed Concrete[3/]	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag
HMA High ESAL	F Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> [5/]: Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.	
		<u>Other Combinations Allowed</u>:	
		Up to...	*With...*

Use	Mixture	Aggregates Allowed	
		50% Crushed Gravel[2/], Crushed Concrete[3/], or Dolomite[2/]	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as leveling binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013
Revised: April 1, 2016

1) Design Composition and Volumetric Requirements

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)
SMA-12.5	2 (50)
IL-19.0, IL-19.0L	2 1/4 (57)"

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 [1/] CA 16, CA 13[3/]
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 [1/] CA 16
SMA[2/]	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13[3/], CA14 or CA16 CA16, CA 13[3/]

1/ CA 16 or CA 13 may be blended with the gradations listed.
2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.
3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA)[1/]; HMA Shoulders[2/]

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"**1030.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that

produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]										
Sieve Size	IL-19.0 mm		SMA [4/] IL-12.5 mm		SMA [4/] IL-9.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)										
1 in. (25 mm)		100								
3/4 in. (19 mm)	90	100		100						
1/2 in. (12.5 mm)	75	89	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 [5/]	16	32 [5/]	34 [6/]	52 [2/]	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 [3/]	7.5	9.5 [3/]	4	6	7	9 [3/]
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ The maximum percent passing the #635 (20 μm) sieve shall be ≤ 3 percent.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

VOLUMETRIC REQUIREMENTS High ESAL				
	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
Ndesign	IL-19.0	IL-9.5	IL-4.75[1/]	
50	13.5	15.0	18.5	65 – 78 [2/]
70				65 - 75
90				

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements SMA [1/]			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 [4/]	3.5	17.0 [2/] 16.0 [3/]	75 - 83

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ Blending of different types of aggregate will not be permitted.
For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

2) Design Verification and Production

Revise Article 1030.04 (d) of the Standard Specifications to read:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1) Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise first paragraph of Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

"The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.
If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb}.”

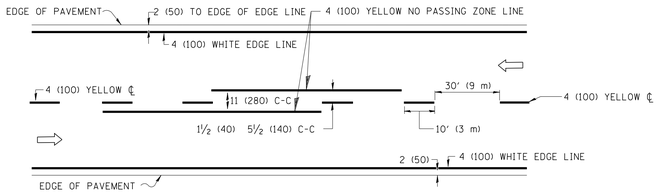
Basis of Payment.

Replace the fourth paragraph of Article 406.14 of the Standard Specifications with the following:

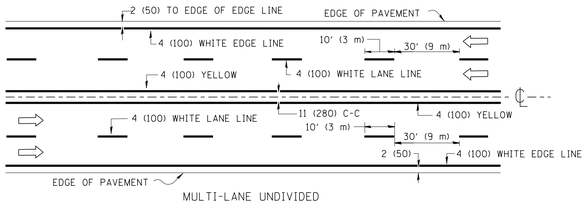
“Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified.”

CONTRACT NO.

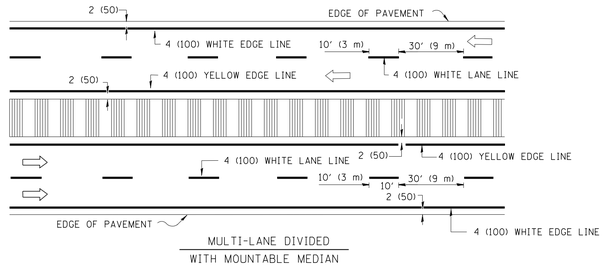
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



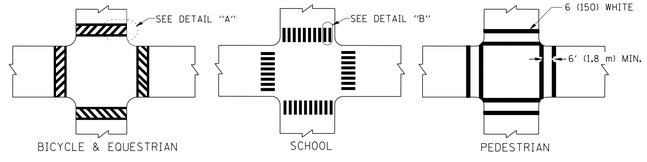
MULTI-LANE UNDIVIDED



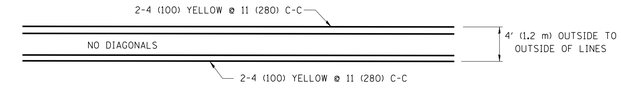
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

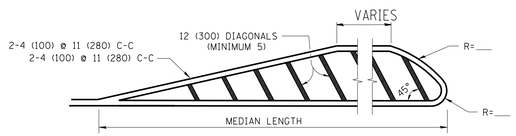
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



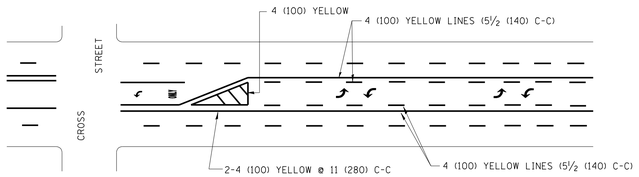
4' (1.2 m) WIDE MEDIANS ONLY



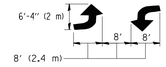
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

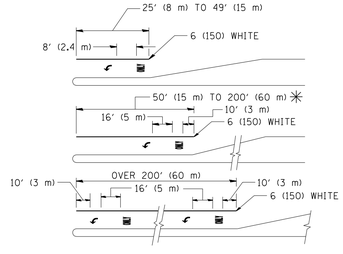


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED. WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

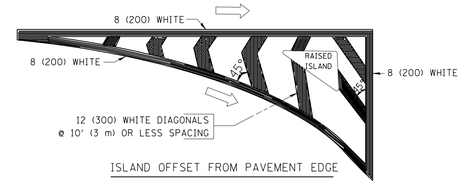


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

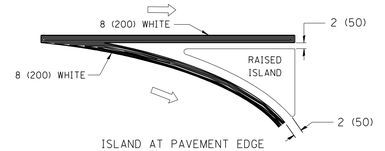
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF; "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
C. JUCIUS	09-09-09

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD

CHECKED BY

TC-13

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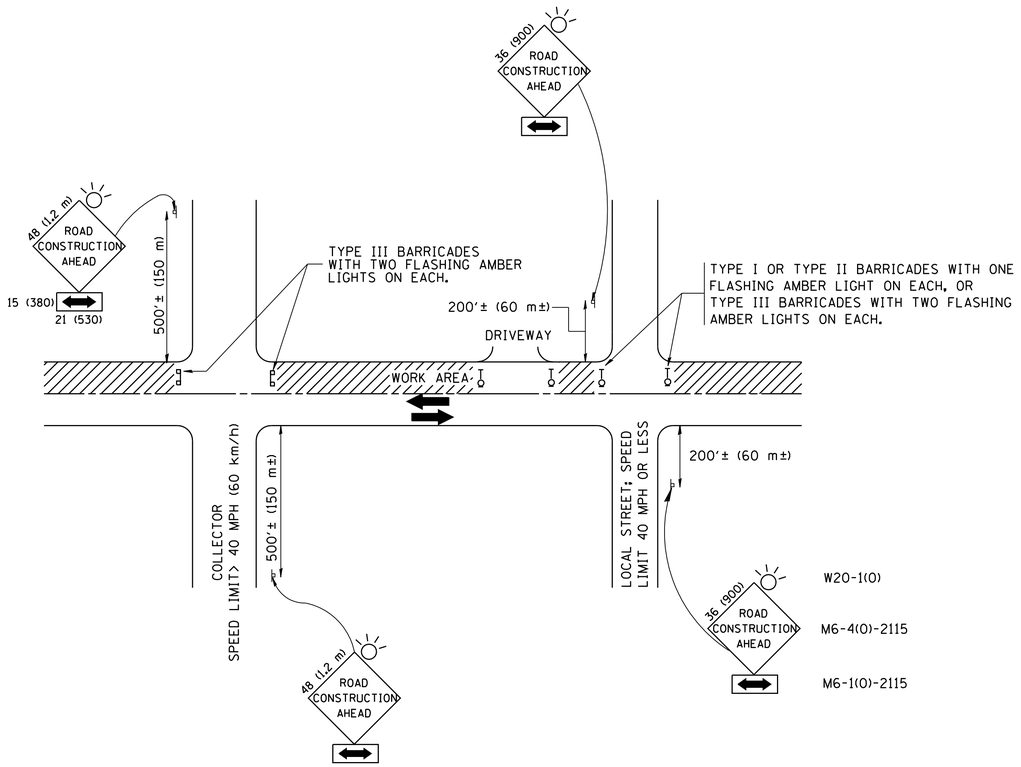


TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME = W:\diststd\22x34\tc10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

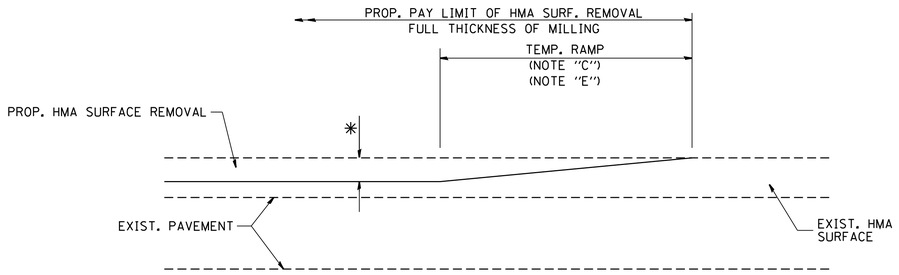
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-10	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO.

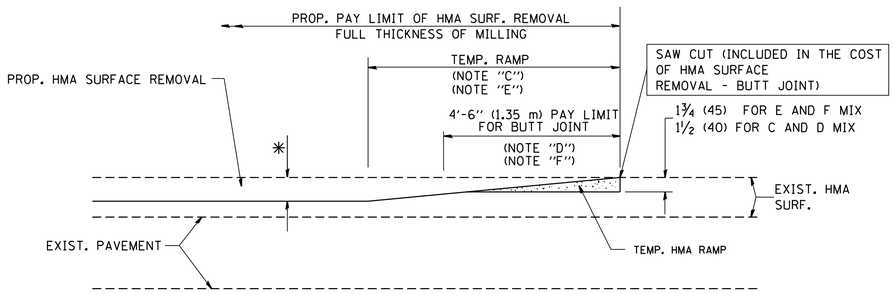
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

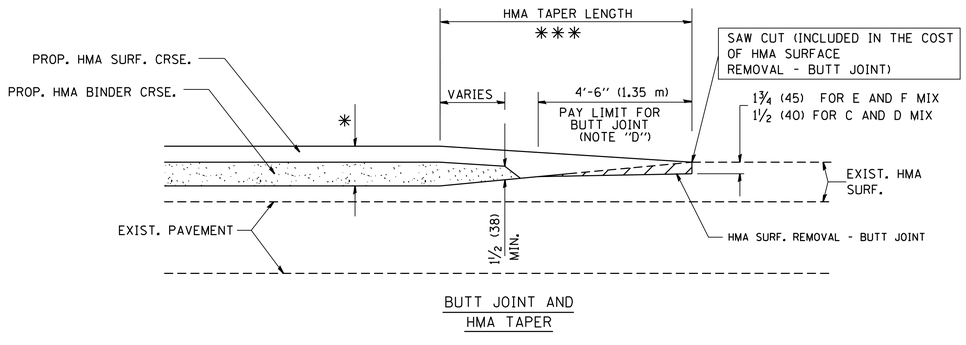


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

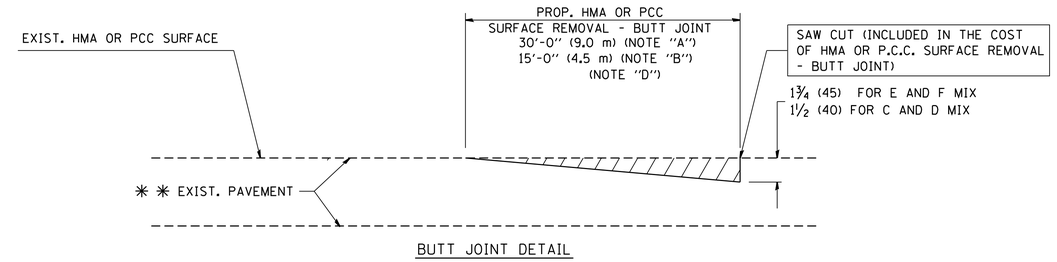
OPTION 2

TYPICAL TEMPORARY RAMP

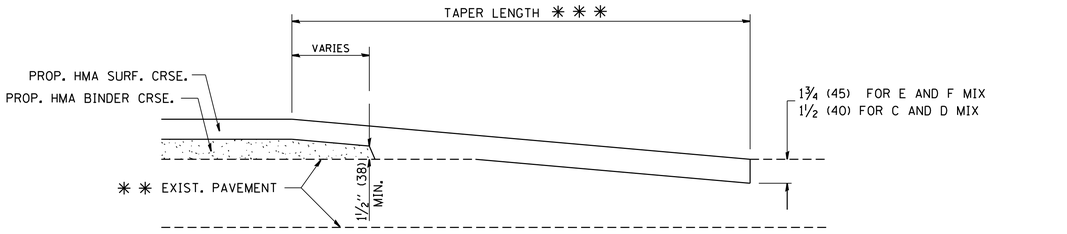


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

* * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE HORIZ.

DRAWN BY

CHECKED BY

BD400-05 (VI=BD32)

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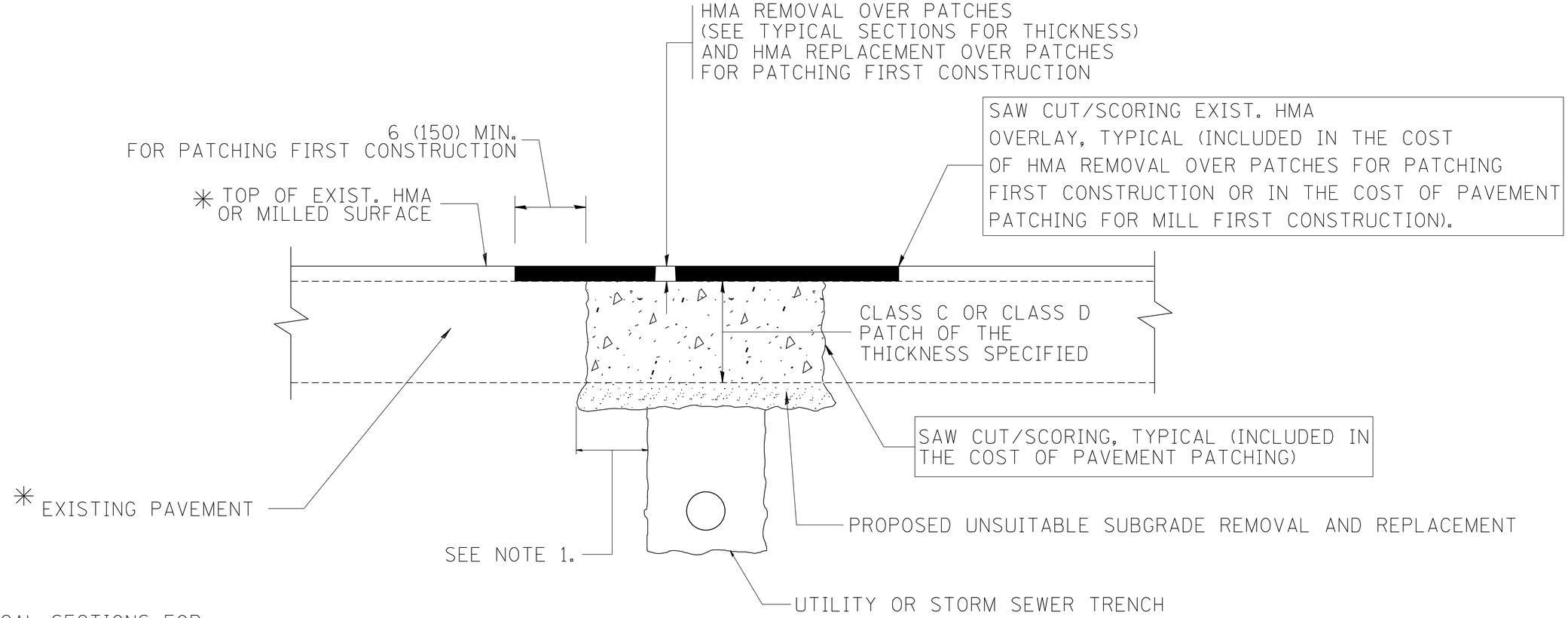
USER NAME = bwarrell



✳ SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

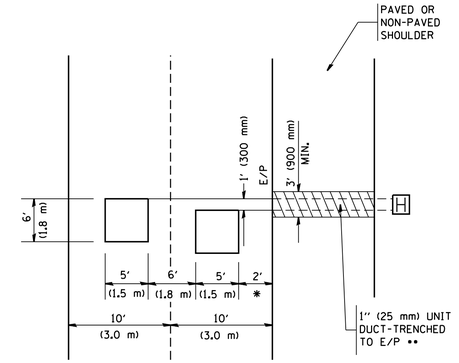
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD400-04 (BD-22)	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

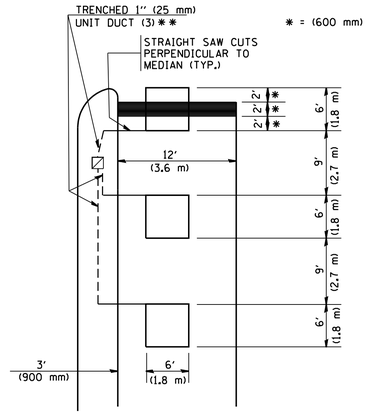


* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)

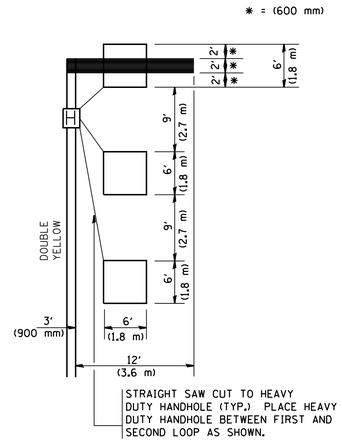
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

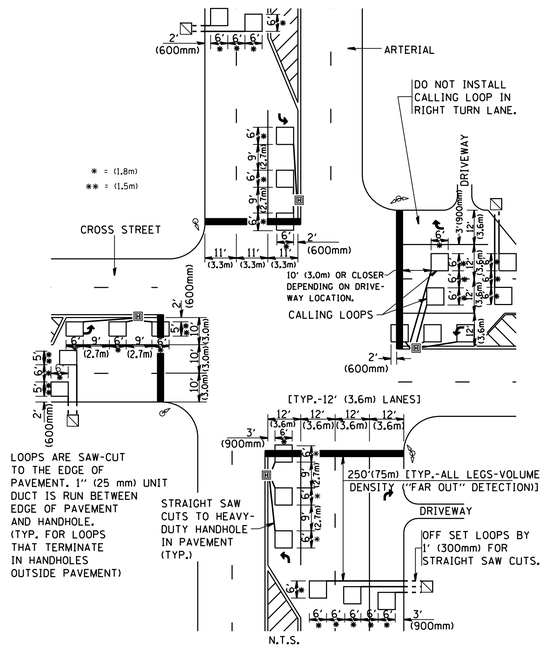
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



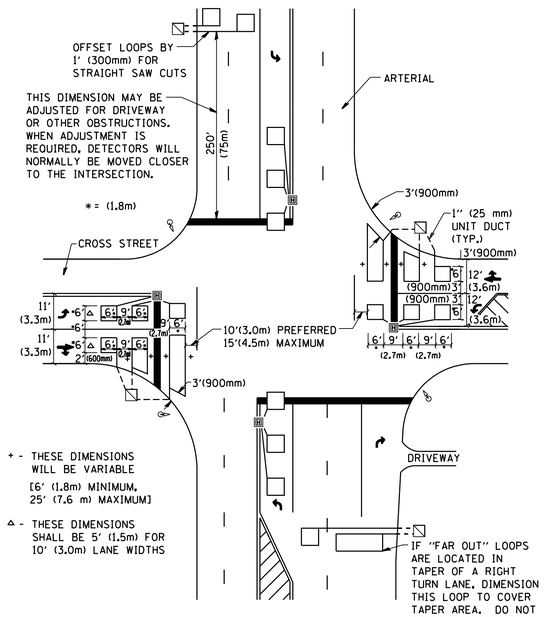
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

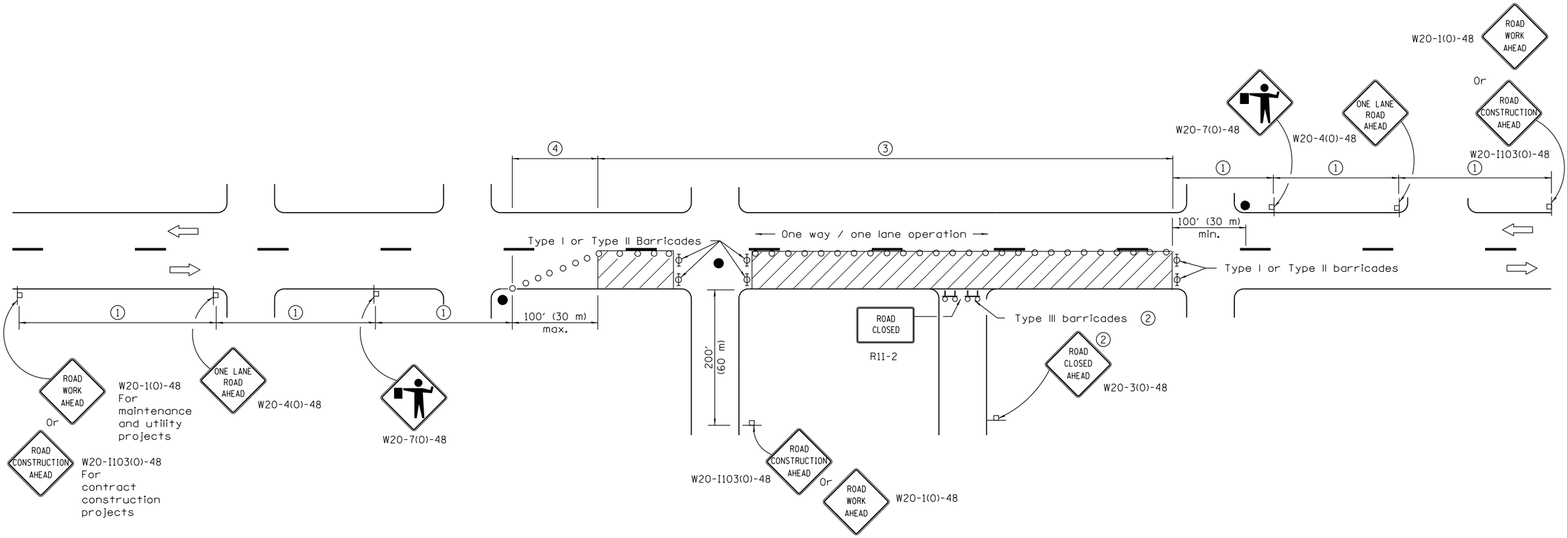
DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

SCALE: NONE

DESIGNED BY
DRAWN BY CADD
CHECKED BY R.K.F.

TS07

PLOT DATE = 3/7/2007
FILE NAME = K:\dist1std\ts07.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bwardl



SIGN SPACING	
Posted Speed	Sign Spacing
55	500′ (150 m)
50-45	350′ (100 m)
<45	200′ (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

1. Refer to SIGN SPACING TABLE for distances.
2. For approved sideroad closures.
3. Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used. the interval between devices may be doubled.
4. Cones, drums or barricades at 20′ (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

Illinois Department of Transportation

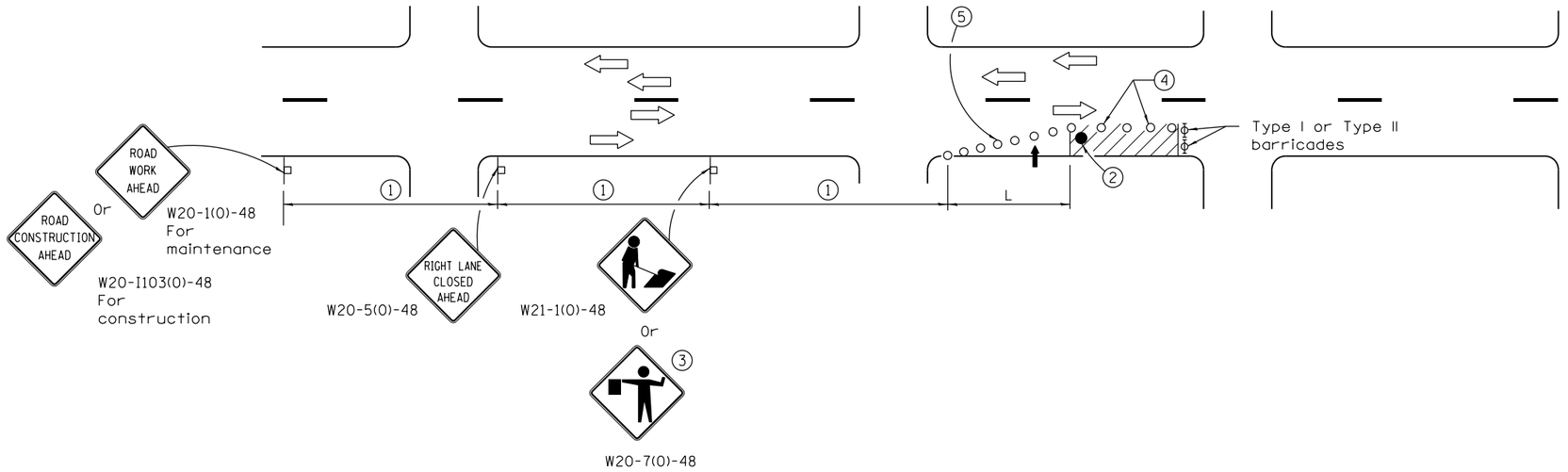
APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501–06



SIGN SPACING	
Posted Speed	Sign Spacing
55	500′ (150 m)
50-45	350′ (100 m)
<45	200′ (60 m)

SYMBOLS

- Arrow board
- Cone, drum or barricade
- Sign on portable or permanent support
- Work area
- Barricade or drum with flashing light
- Flagger with traffic control sign.

(1) Refer to SIGN SPACING TABLE for distances.

(2) Required for speeds > 40 mph.

(3) Use flagger sign only when flagger is present.

(4) Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(5) Cones, drums or barricades at 20′ (6 m) centers in taper.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an Urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

APPROVED January 1. 2015
ENGINEER OF SAFETY ENGINEERING

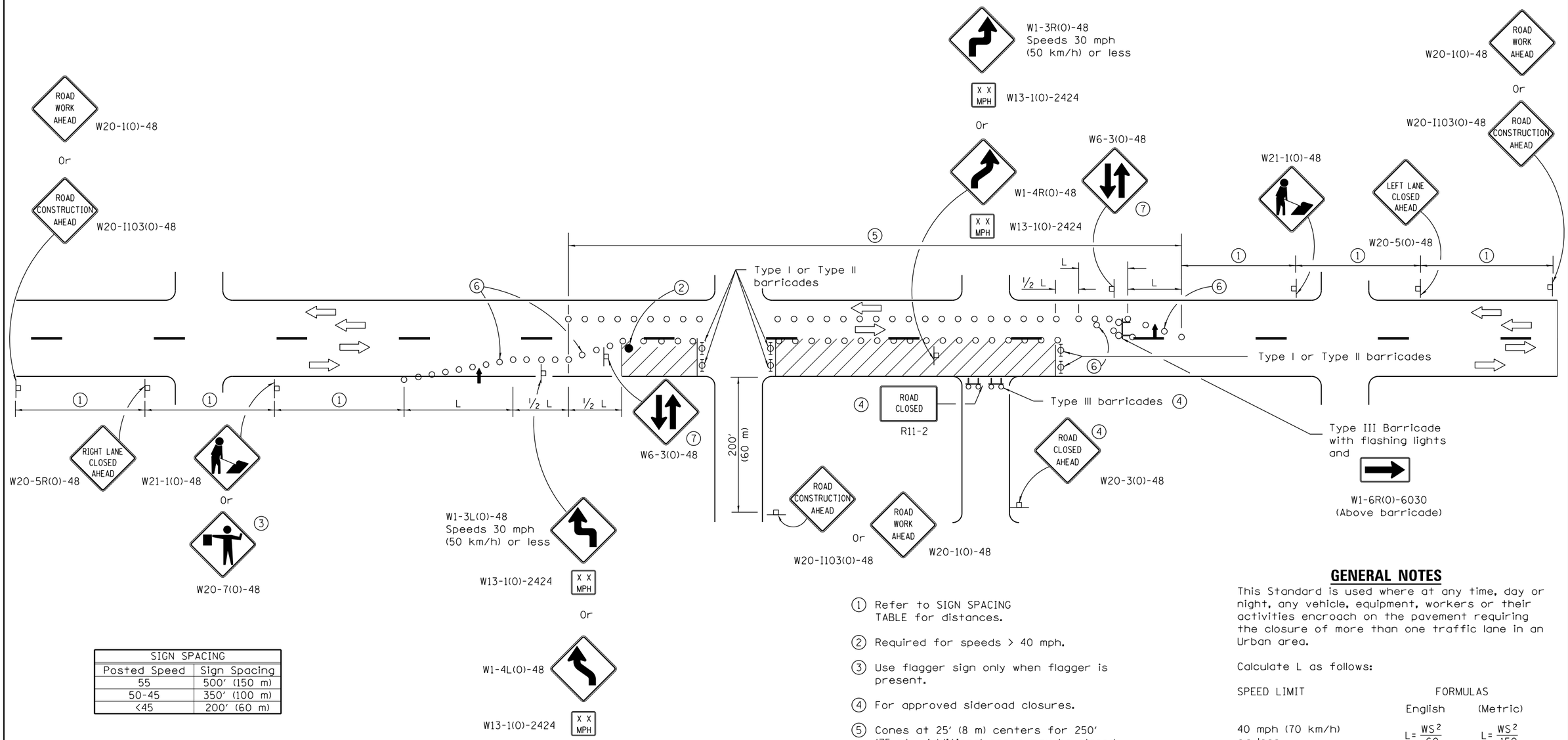
APPROVED January 1. 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-15	Renamed standard. Moved
	case on Sheet 2 to new
	Highway Standard.
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.

URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN

STANDARD 701606–10



SIGN SPACING	
Posted Speed	Sign Spacing
55	500′ (150 m)
50-45	350′ (100 m)
<45	200′ (60 m)

SYMBOLS

- Arrow board
- Cone, drum or barricade
- Sign on portable or permanent support
- Work area
- Barricade or drum with flashing light
- Type III barricade with flashing lights
- Flagger with traffic control sign.

1. Refer to SIGN SPACING TABLE for distances.
2. Required for speeds > 40 mph.
3. Use flagger sign only when flagger is present.
4. For approved sideroad closures.
5. Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
6. Cones, drums or barricades at 20′ (6 m) centers in taper.
7. Repeat every 1 mile (1.6 km).

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of more than one traffic lane in an Urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

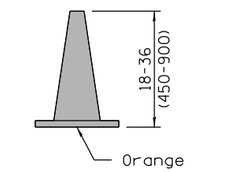
APPROVED April 1. 2016
ENGINEER OF SAFETY ENGINEERING
APPROVED April 1. 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15

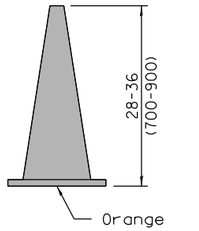
DATE	REVISIONS
4-1-16	Moved first reverse
	curve/turn sign to
	middle of tangent.
1-1-15	New Standard.

URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN

STANDARD 701611–01

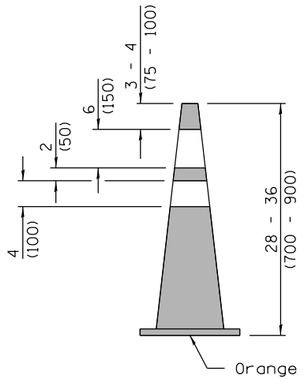


Posted speed < 45 mph

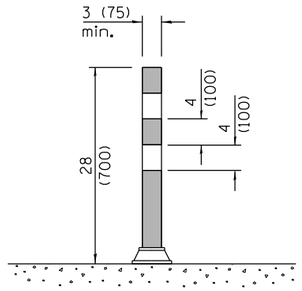


Posted speed ≥ 45 mph

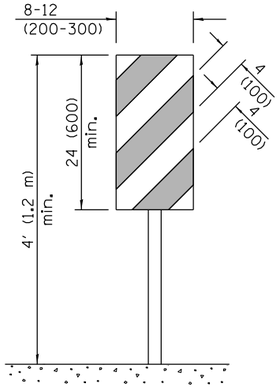
CONE FOR DAYTIME



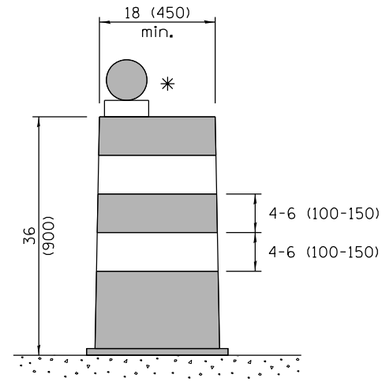
REFLECTORIZED CONE FOR NIGHTTIME



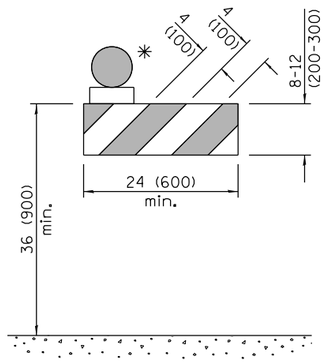
FLEXIBLE DELINEATOR



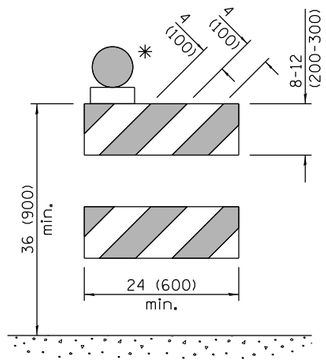
VERTICAL PANEL
POST MOUNTED



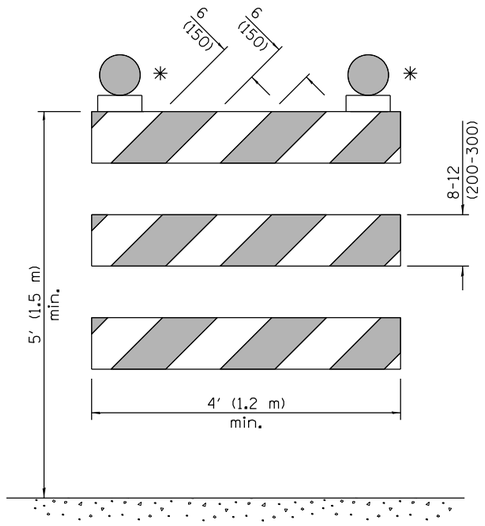
DRUM



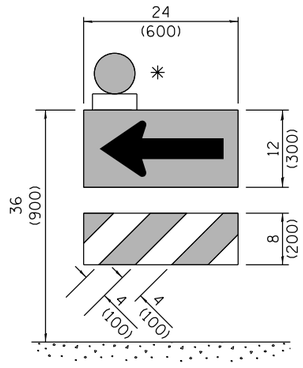
TYPE I BARRICADE



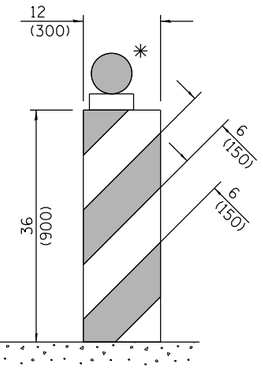
TYPE II BARRICADE



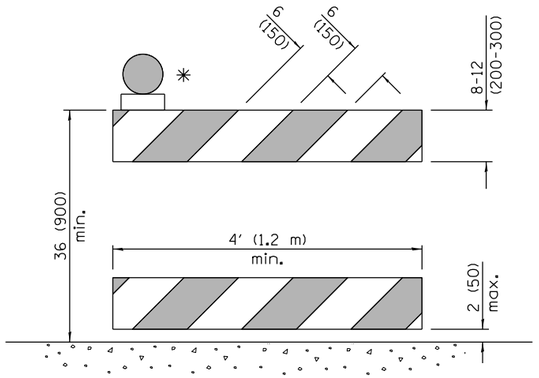
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

✳ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF OPERATIONS

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

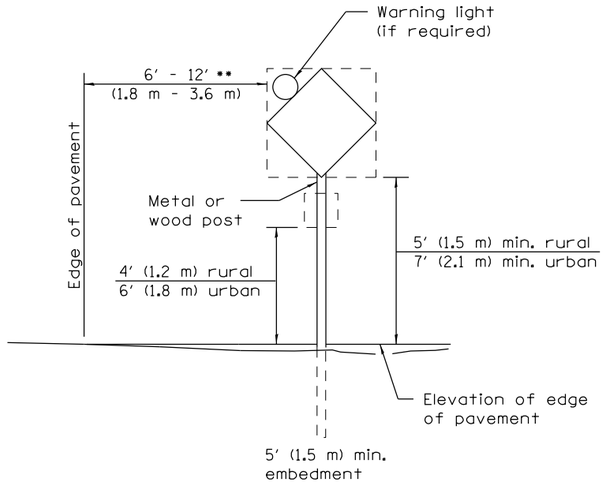
ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Add dim's to barricades. Rev.
	note for post mnt. signs.
	Rev. cone dtls. Add W12-1103.
1-1-15	Revised two sign numbers on
	sheet 2. Added note reg.
	PHOTO ENFORCED plaque.

TRAFFIC CONTROL DEVICES

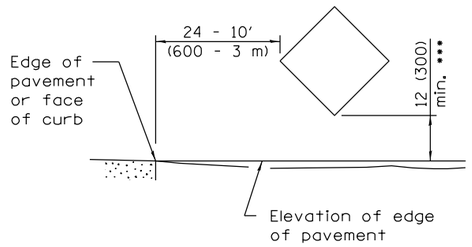
(Sheet 1 of 3)

STANDARD 701901-05



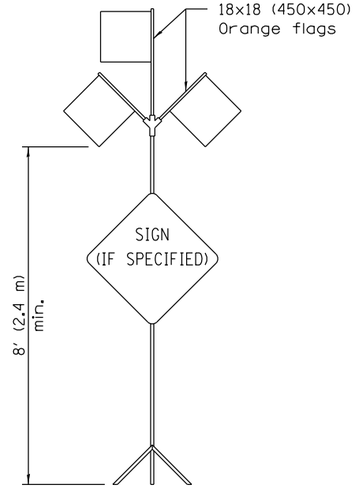
POST MOUNTED SIGNS

•• When curb 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.

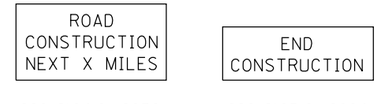


SIGNS ON TEMPORARY SUPPORTS

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



HIGH LEVEL WARNING DEVICE



G20-I104(0)-6036 G20-I105(0)-6024

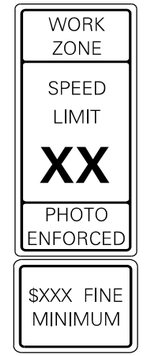
This signing is required for all projects 2 miles (3200 m) or more in length.

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



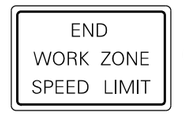
W21-III5(0)-3618

R2-1-3648

R10-I108p-3618 ••••

R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

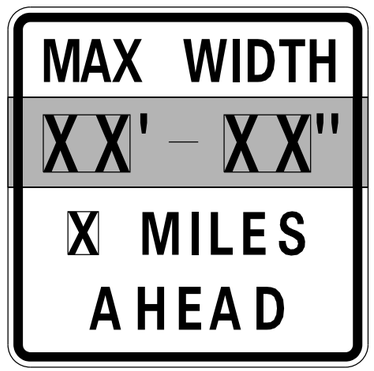


G20-I103(0)-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

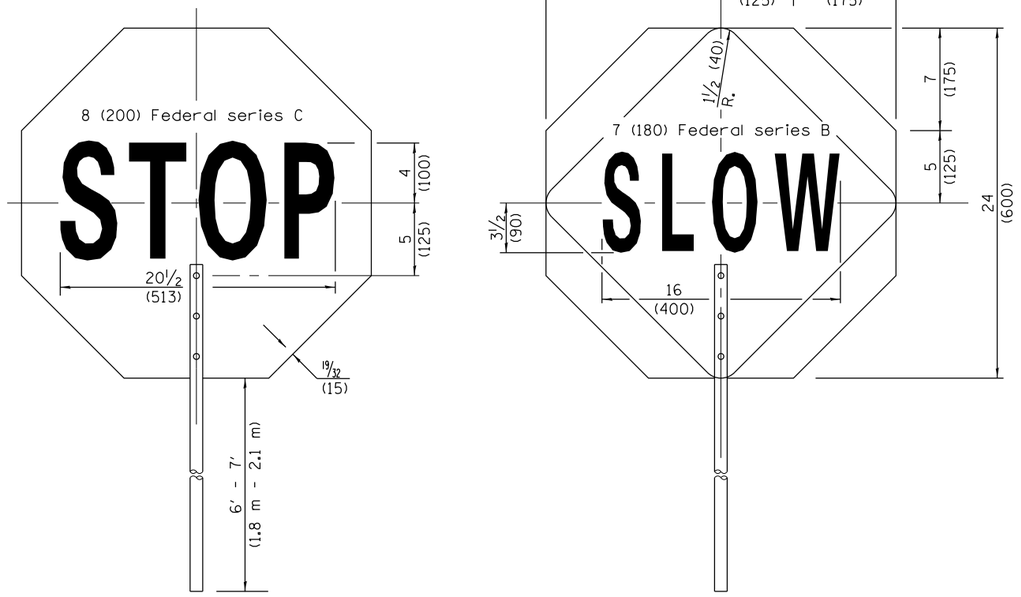
•••• R10-I108p shall only be used along roadways under the juristiction of the State.



W12-I103-4848

WIDTH RESTRICTION SIGN

XX′-XX″ width and X miles are variable.



FRONT SIDE REVERSE SIDE

FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF OPERATIONS

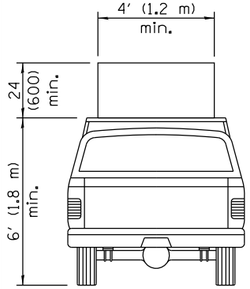
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

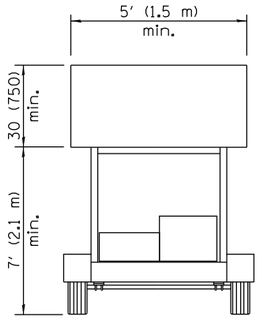
TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

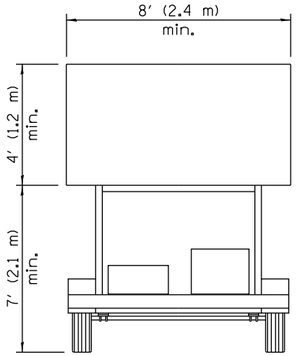
STANDARD 701901–05



TYPE A ROOF MOUNTED

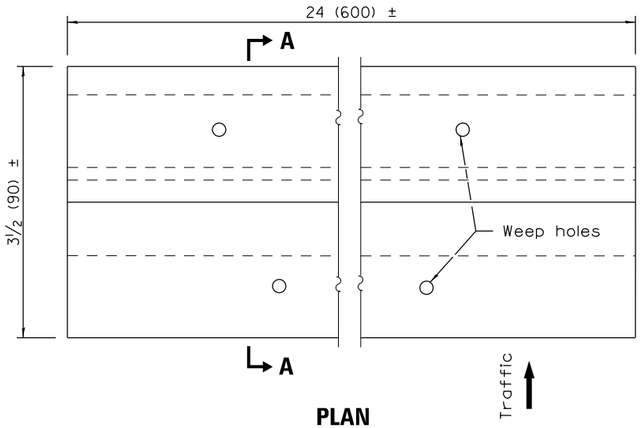


TYPE B ROOF OR TRAILER MOUNTED

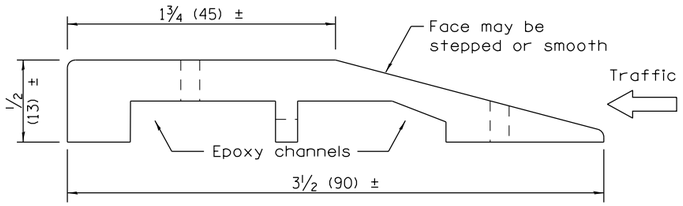


TYPE C TRAILER MOUNTED

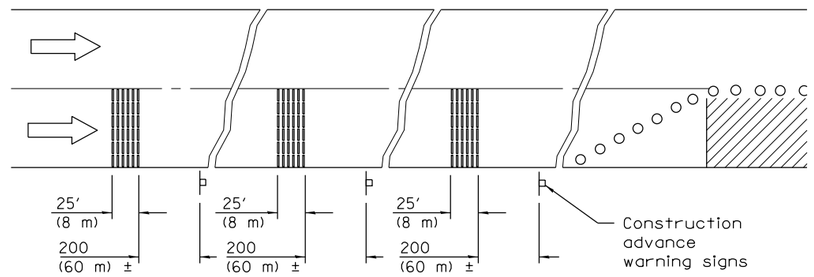
ARROW BOARDS

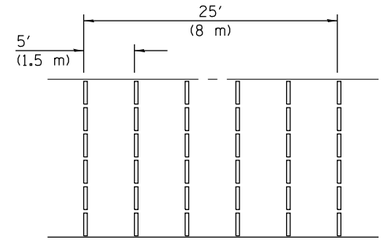


PLAN



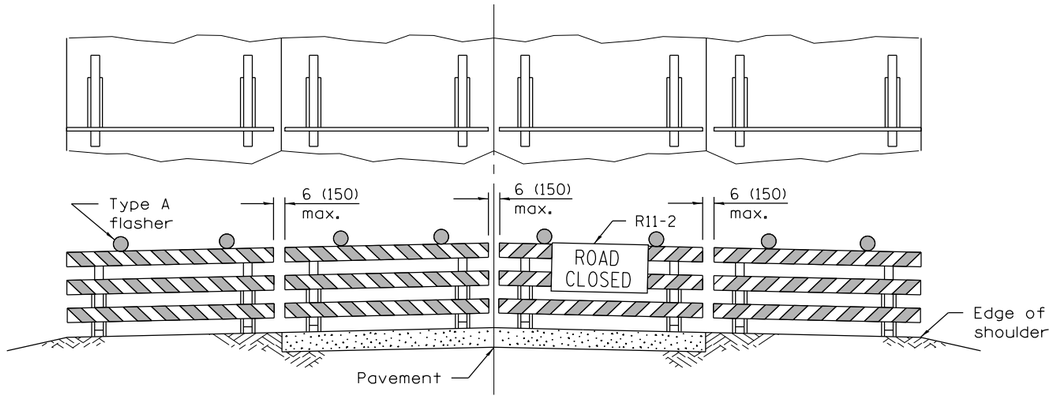
SECTION A–A





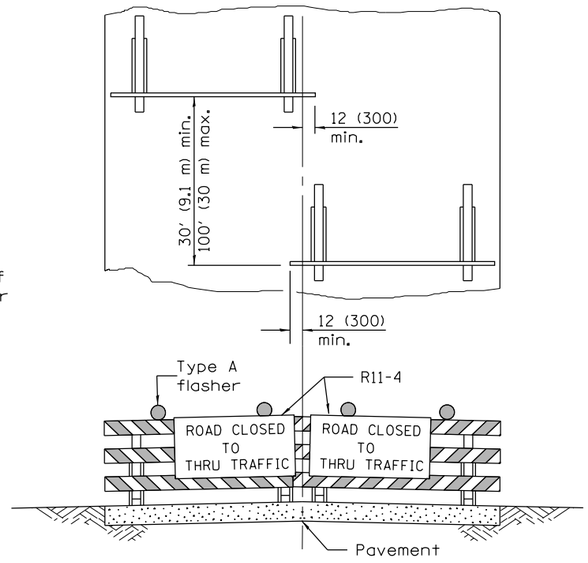
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side 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 an NCHRP 350 temporary sign support directly 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 signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation

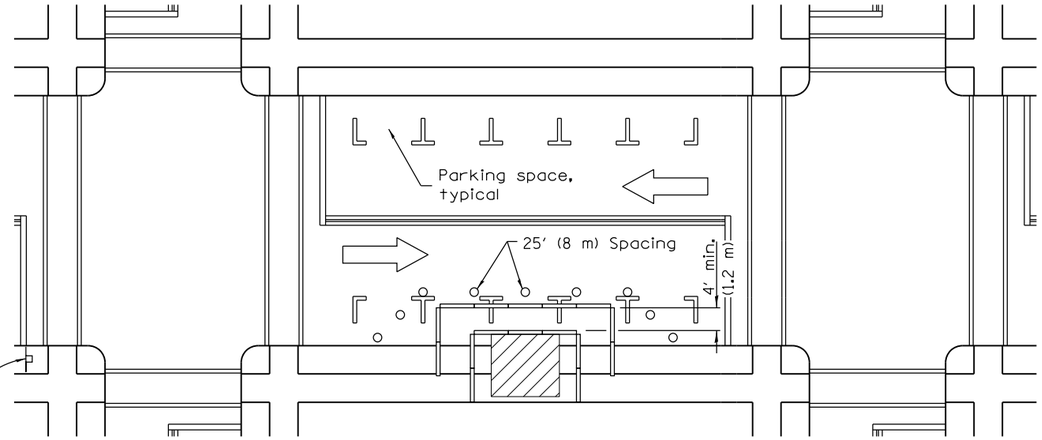
APPROVED April 1, 2016
ENGINEER OF OPERATIONS

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TRAFFIC CONTROL DEVICES

STANDARD 701901–05



① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

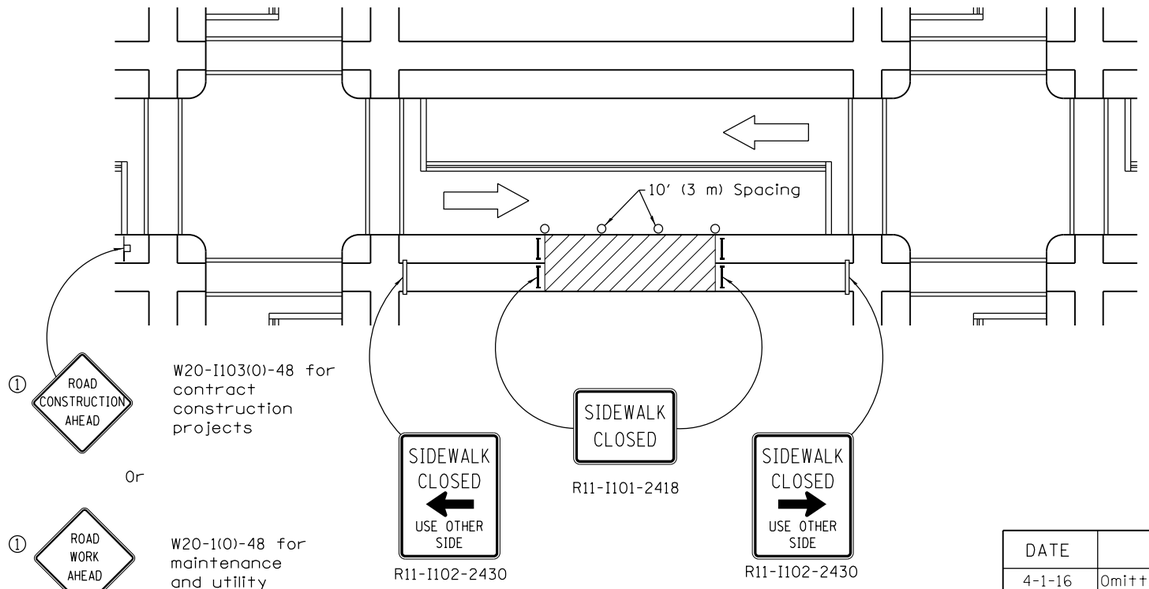
① ROAD WORK AHEAD — W20-I(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD — W20-I(0)-48 for maintenance and utility projects

SIDEWALK CLOSURE

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

Illinois Department of Transportation

APPROVED April 1. 2016
ENGINEER OF SAFETY ENGINEERING

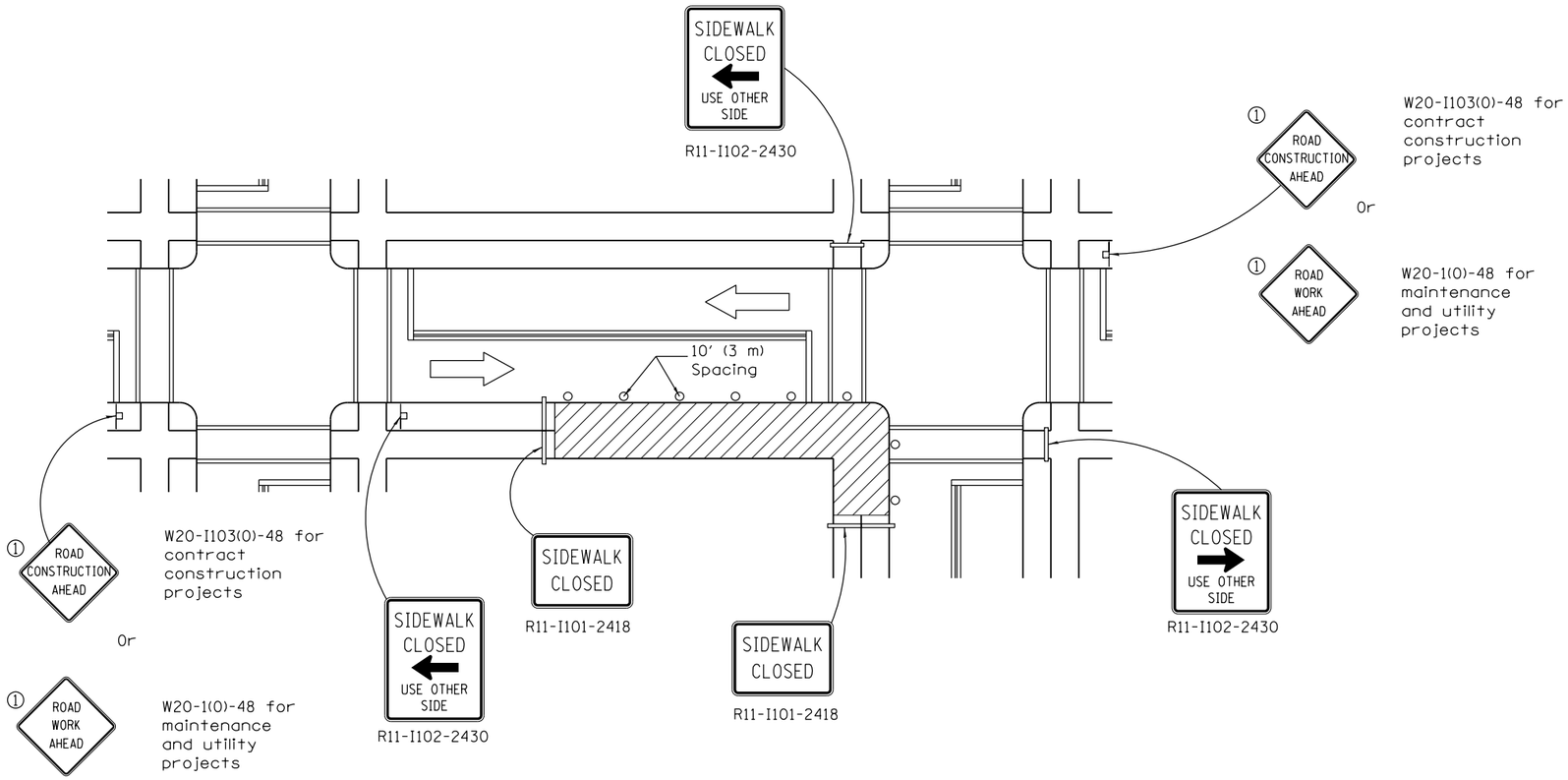
APPROVED April 1. 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

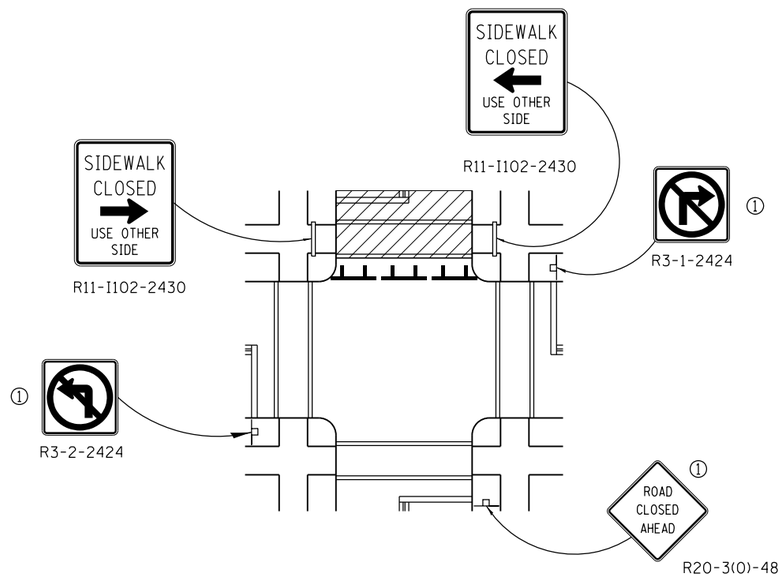
DATE	REVISIONS
4-1-16	Omitted orange safety fence
	from standard as this is
	covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of
	plan views. Renamed Std.

SIDEWALK, CORNER OR CROSSWALK CLOSURE

STANDARD 701801–06



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

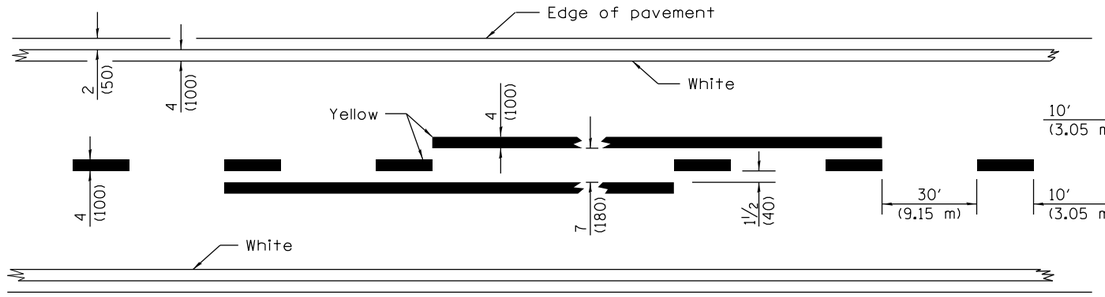
APPROVED April 1, 2016
ENGINEER OF SAFETY ENGINEERING
APPROVED April 1, 2016
ENGINEER OF DESIGN AND EVIRONMENT

ISSUED 1-1-97

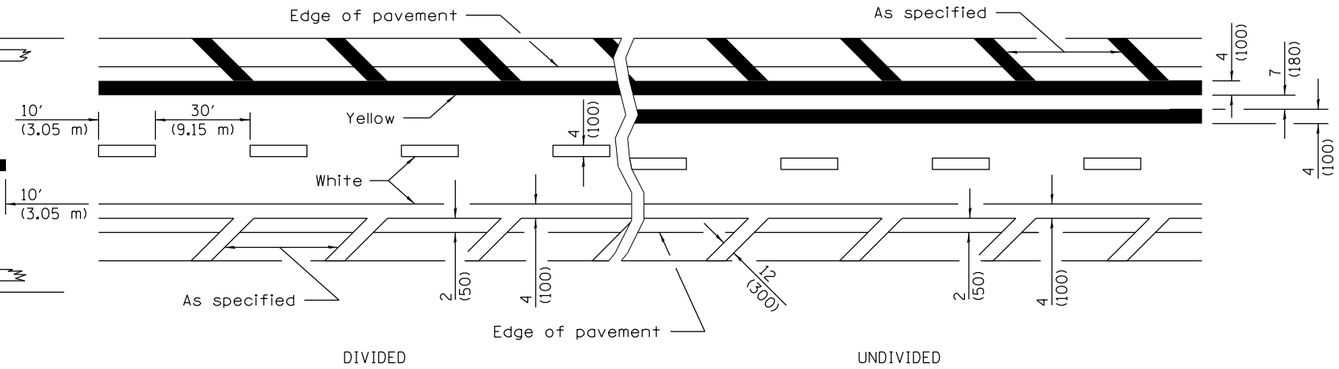
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

STANDARD 701801–06

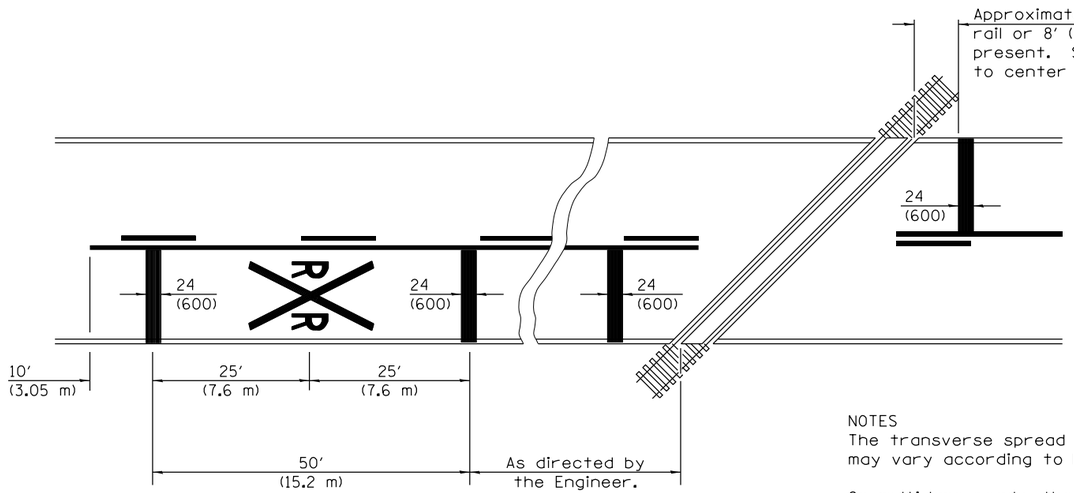


2 LANE



MULTI LANE

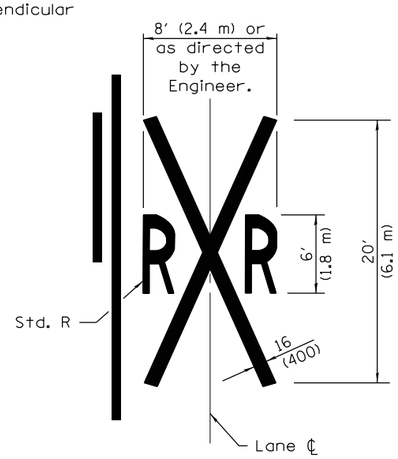
LANE AND EDGE LINES



NOTES
The transverse spread of the "X" may vary according to lane width.

On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.



PAVEMENT MARKINGS AT RAILROAD–HIGHWAY GRADE CROSSING

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

Illinois Department of Transportation

APPROVED January 1, 2015
ENGINEER OF OPERATIONS
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

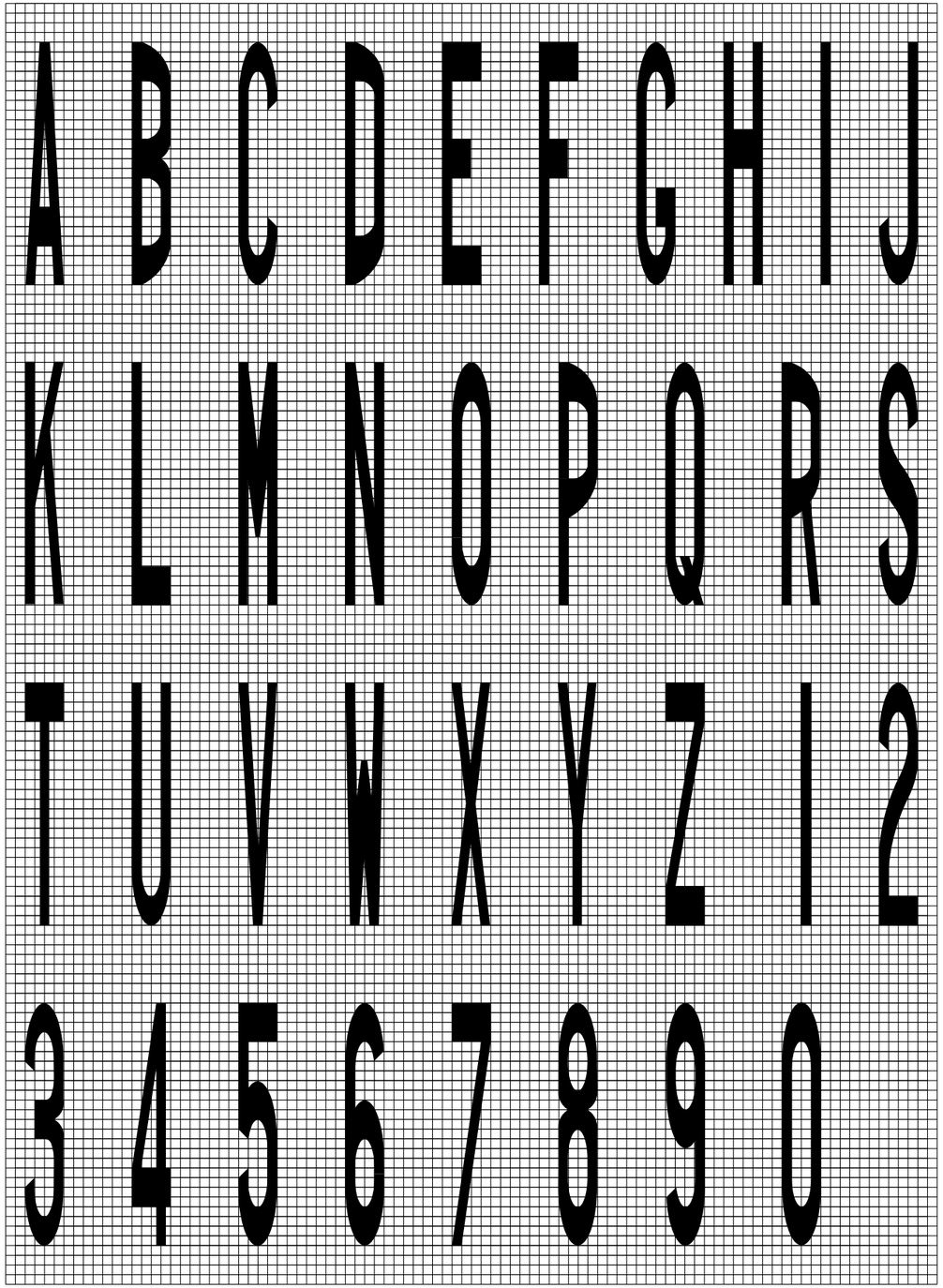
ISSUED 1-1-97

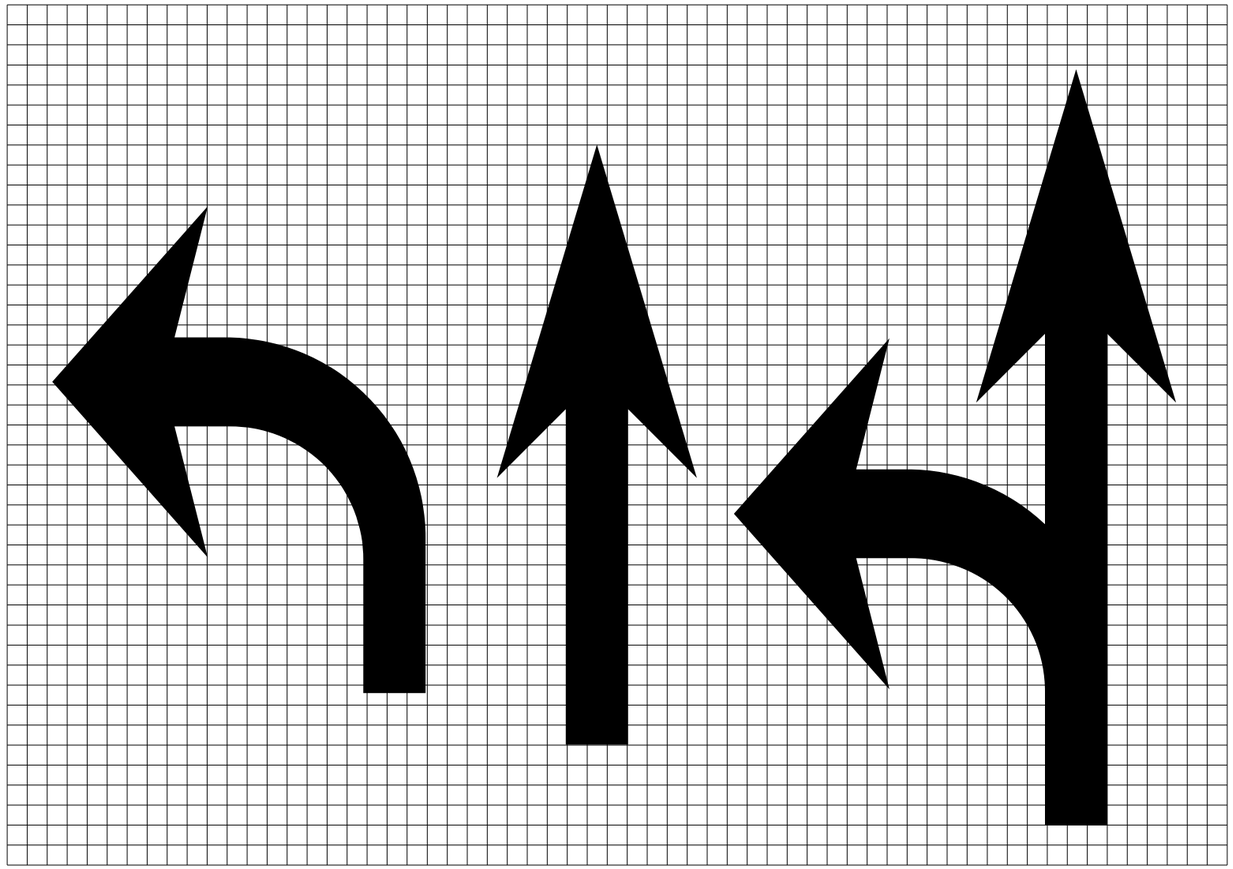
DATE	REVISIONS
1-1-15	Added symbols. Revised
	bike symbol. Revised note
	for stop line at RR crossing.
1-1-14	Added bike symbol. Renamed
	'LANE DROP ARROW' detail to
	'LANE-REDUCTION ARROW'.

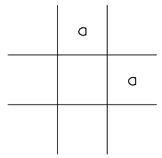
TYPICAL PAVEMENT MARKINGS

(Sheet 1 of 3)

STANDARD 780001–05







Legend Height	Arrow Size	a
6′ (1.8 m)	Small	2.9 (74)
8′ (2.4 m)	Large	3.8 (96)

The space between adjacent letters or numerals should be approximately 3 (75) for 6′ (1.8 m) legend and 4 (100) for 8′ (2.4 m) legend.

LETTER AND ARROW GRID SCALE

Illinois Department of Transportation

APPROVED January 1, 2015
ENGINEER OF OPERATIONS

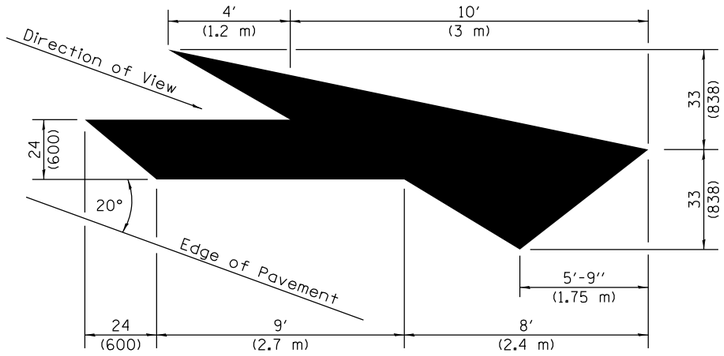
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TYPICAL PAVEMENT MARKINGS

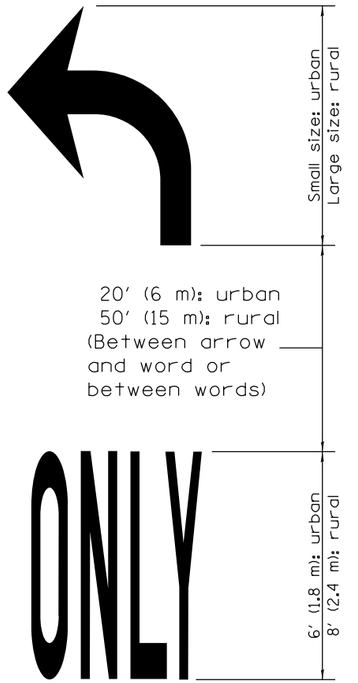
(Sheet 2 of 3)

STANDARD 780001–05

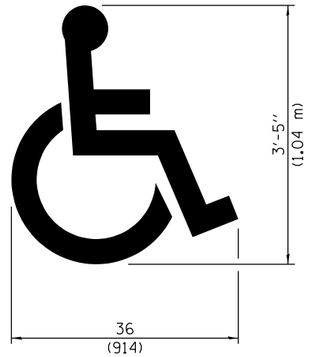


LANE–REDUCTION ARROW

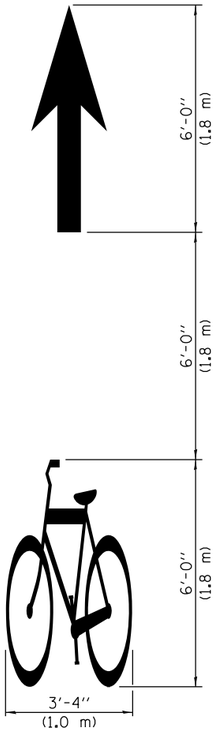
Right lane-reduction arrow shown.
Use mirror image for left lane.



WORD AND ARROW LAYOUT

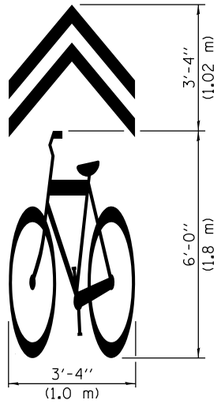


INTERNATIONAL SYMBOL OF ACCESSILITY

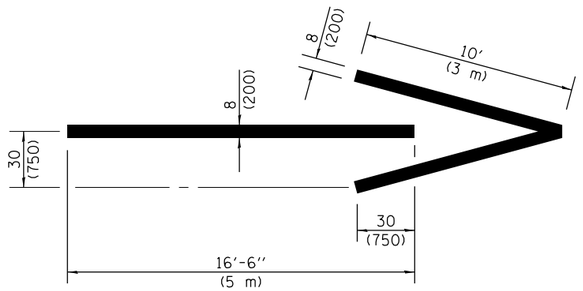


BIKE SYMBOL

(Arrow is optional.)



SHARED LANE SYMBOL



WRONG WAY ARROW

Illinois Department of Transportation

APPROVED January 1, 2015
ENGINEER OF OPERATIONS

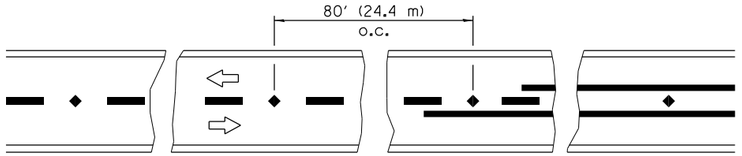
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TYPICAL PAVEMENT MARKINGS

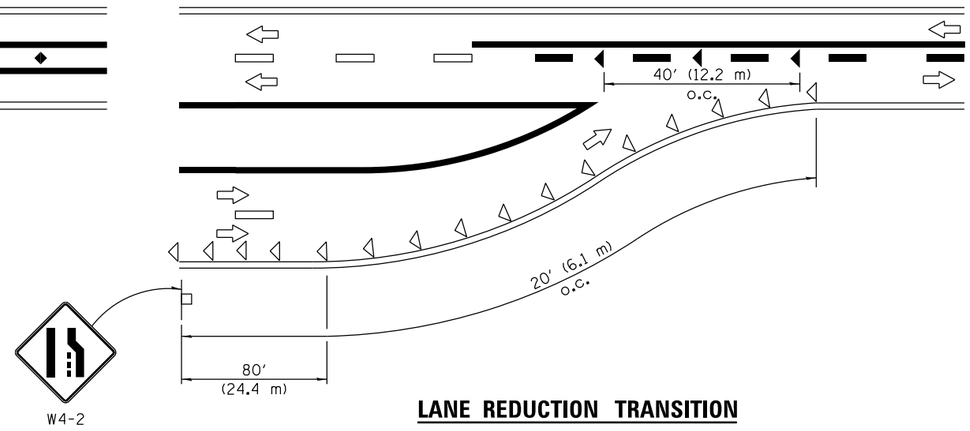
(Sheet 3 of 3)

STANDARD 780001–05

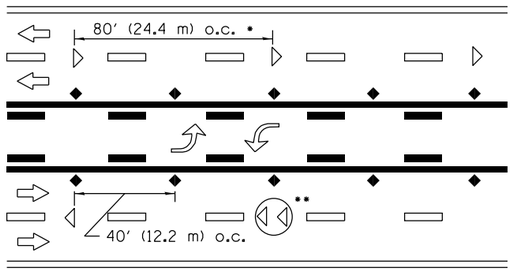


Reduce to 40′ (12.2 m) o.c. on curves with posted or advisory speeds of 45 mph (70 km/h) or less.

TWO–LANE /TWO–WAY

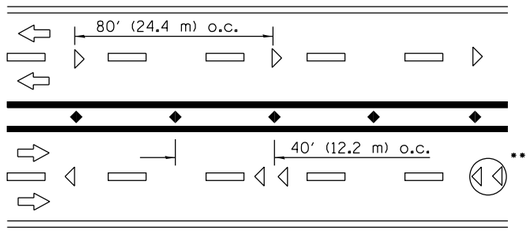


LANE REDUCTION TRANSITION



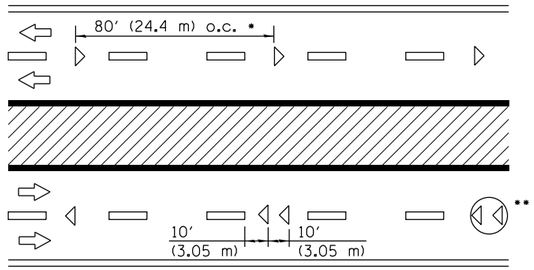
•,•• See MULTI LANE DIVIDED detail for lane marker notes.

TWO–WAY LEFT TURN



•,•• See MULTI LANE DIVIDED detail for lane marker notes.

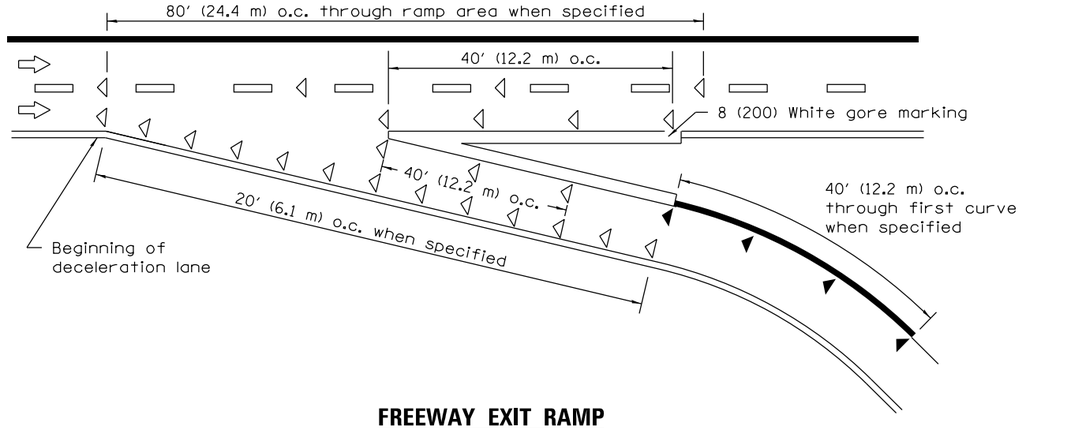
MULTI–LANE UNDIVIDED



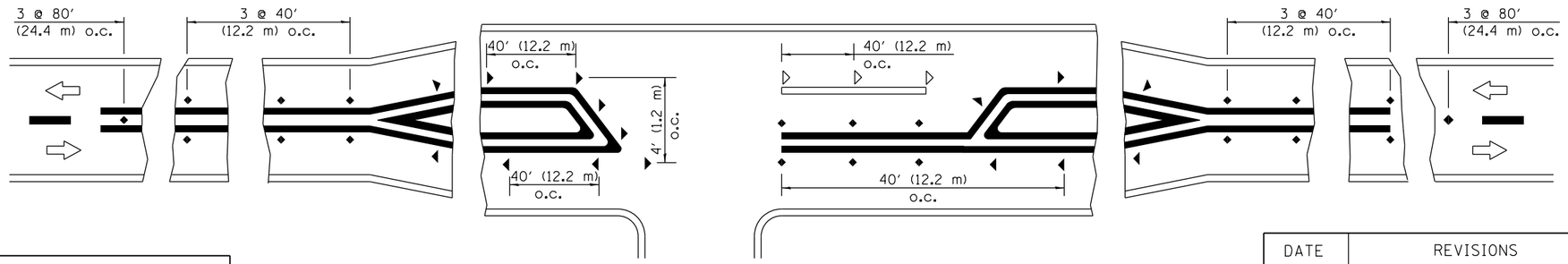
• Reduce to 40′ (12.2 m) o.c. on curves where advisory speeds are 10 mph (15 km/h) lower than posted speeds.

•• Where double lane line markers are specified, they shall be spaced as shown.

MULTI–LANE DIVIDED



FREEWAY EXIT RAMP



RURAL LEFT TURN

SYMBOLS

- Yellow stripe
- White stripe
- One-way amber marker
- One-way crystal marker
- Two-way amber marker

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

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF OPERATIONS

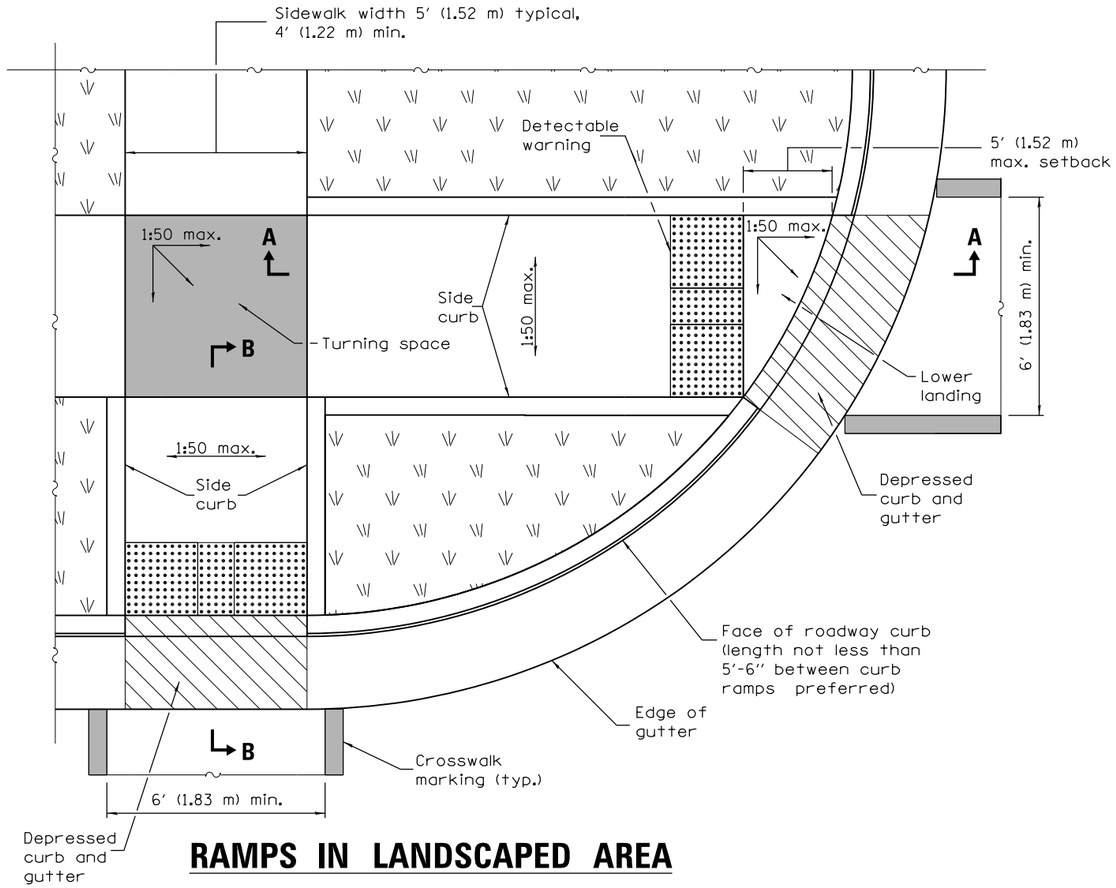
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

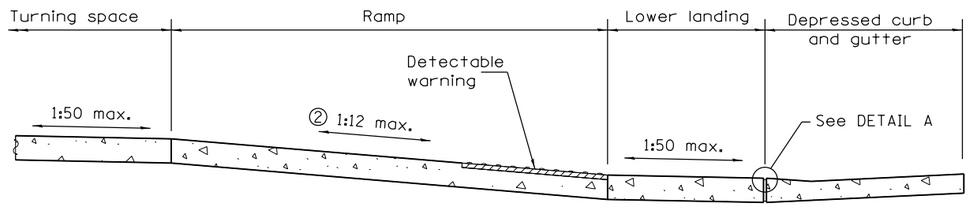
DATE	REVISIONS
4-1-16	Revised LANE ENDS sign
	W4-2 to agree with current
	MUTCD.
1-1-09	Switched units to
	English (metric).

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

STANDARD 781001–04

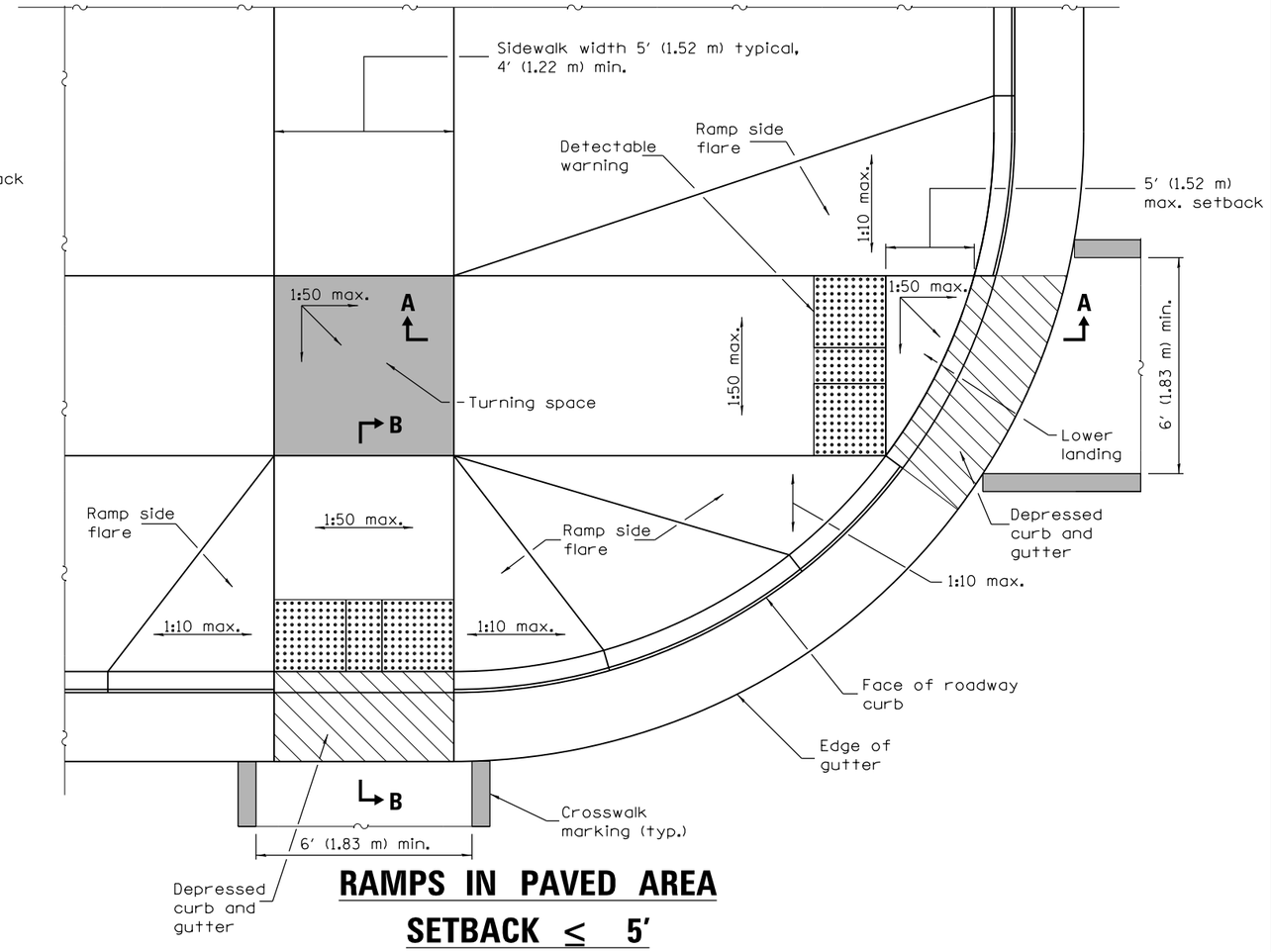


RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5′

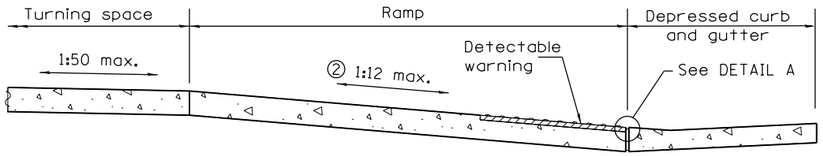


SECTION A–A

② The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).

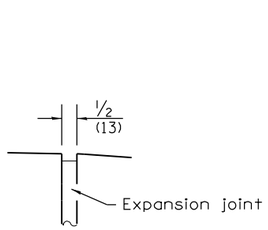


RAMPS IN PAVED AREA
SETBACK ≤ 5′

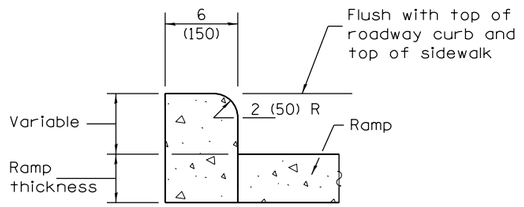


SECTION B–B

② The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).



DETAIL A



SIDE CURB DETAIL

Illinois Department of Transportation

PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

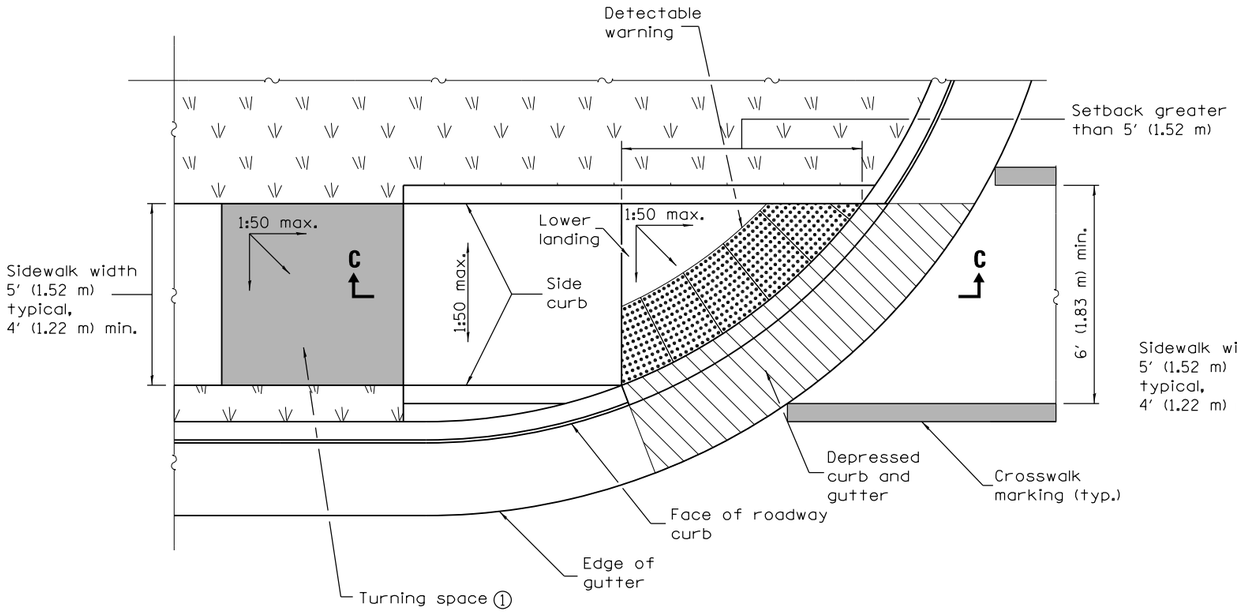
See Sheet 2 for GENERAL NOTES.

DATE	REVISIONS
1-1-15	① not appl. to int. sidewalks.
	Rev. gen. notes. Ch'd Upper
	landing to Turning space.
1-1-13	Widened crosswalk markings
	to 6′ (1.83 m) min. inside
	dimension. Rev. Gen. Notes.

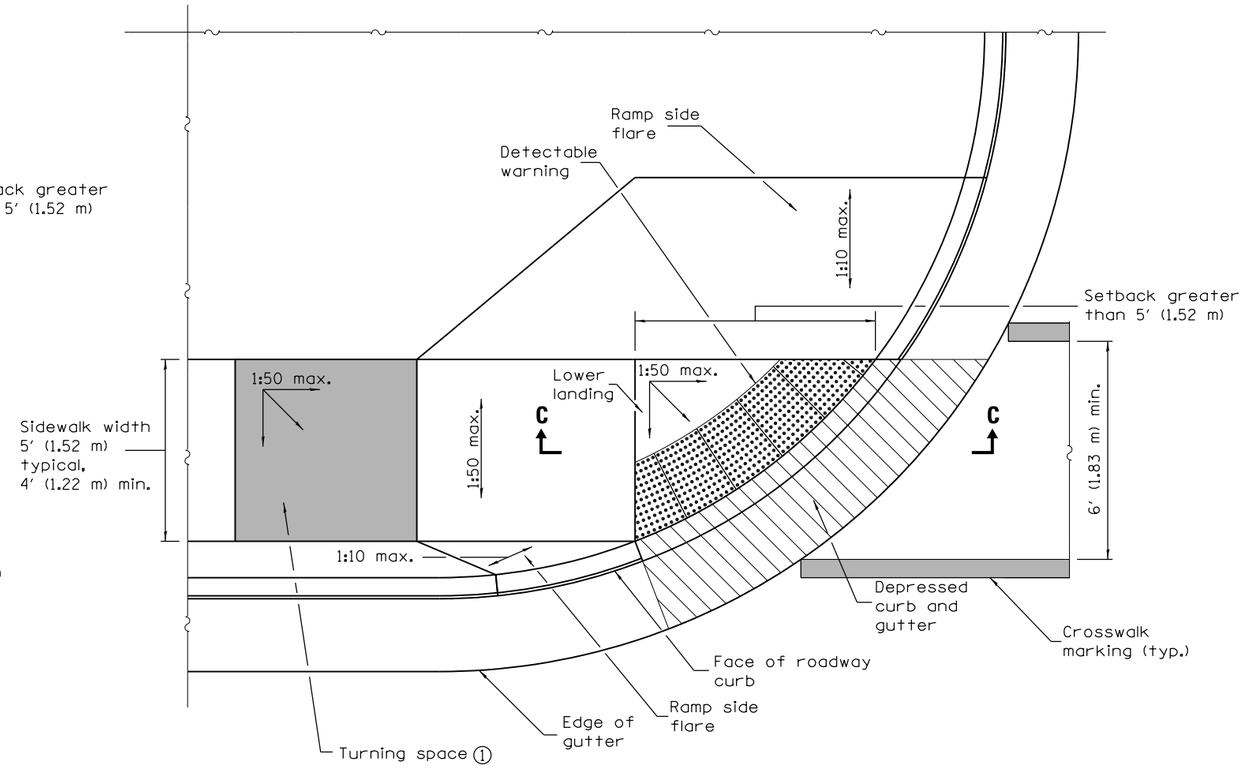
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

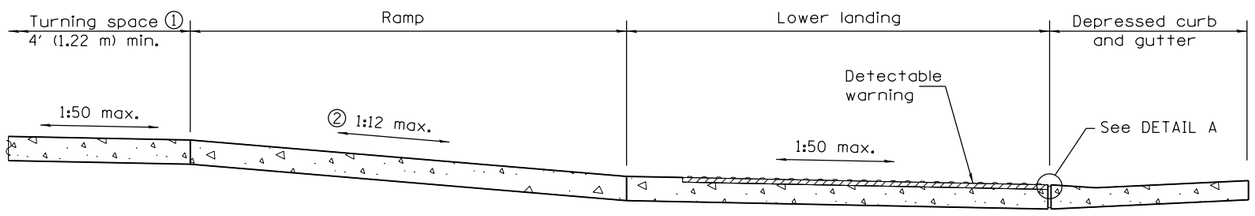
STANDARD 424001–08



RAMP IN LANDSCAPED AREA
SETBACK > 5′



RAMP IN PAVED AREA
SETBACK > 5′



SECTION C–C

① Turning space not required for ramp slopes flatter than 1:20.

② The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5′ (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

Illinois Department of Transportation

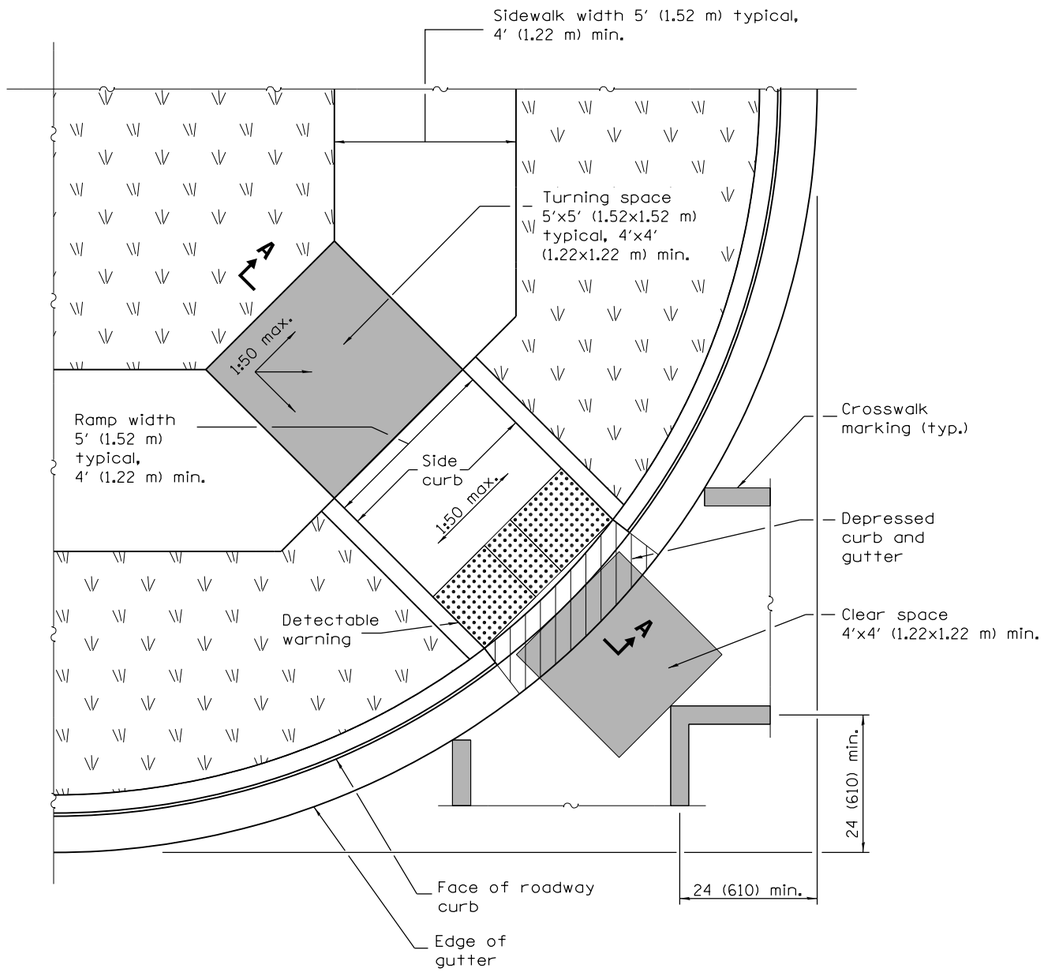
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

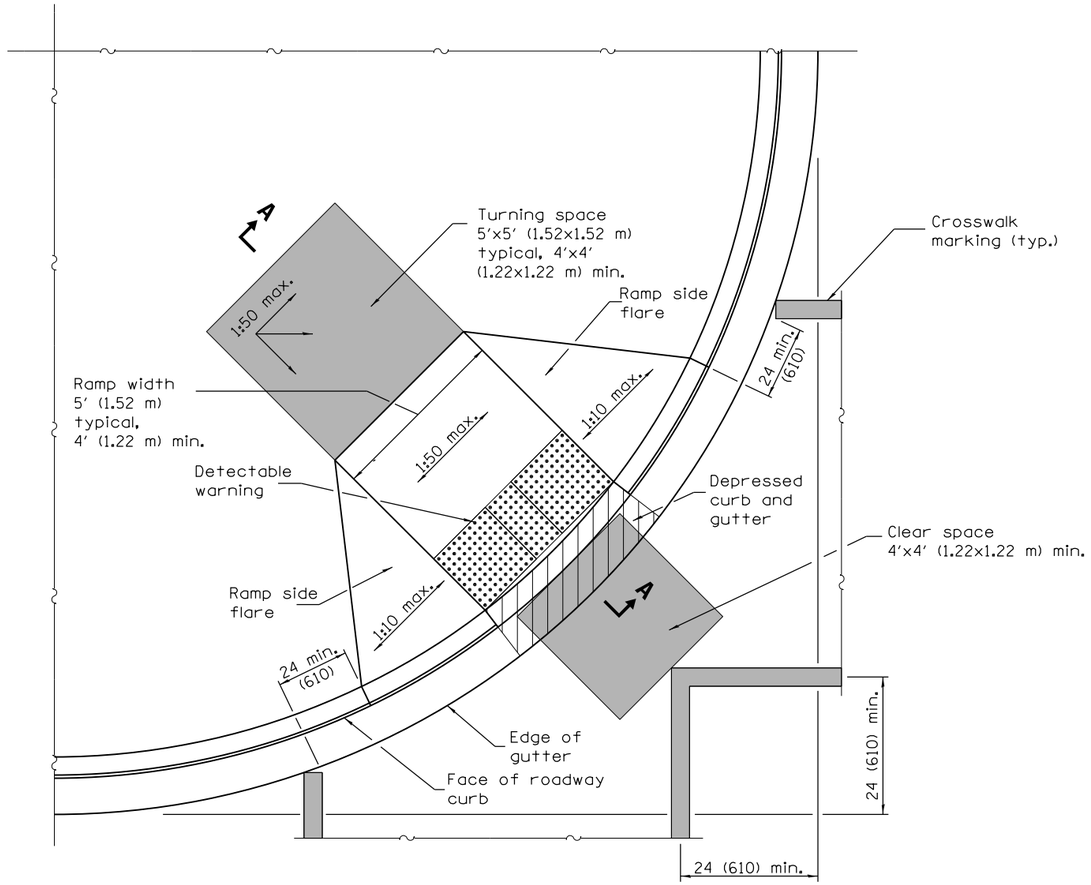
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

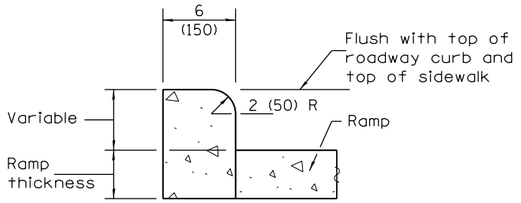
STANDARD 424001–08



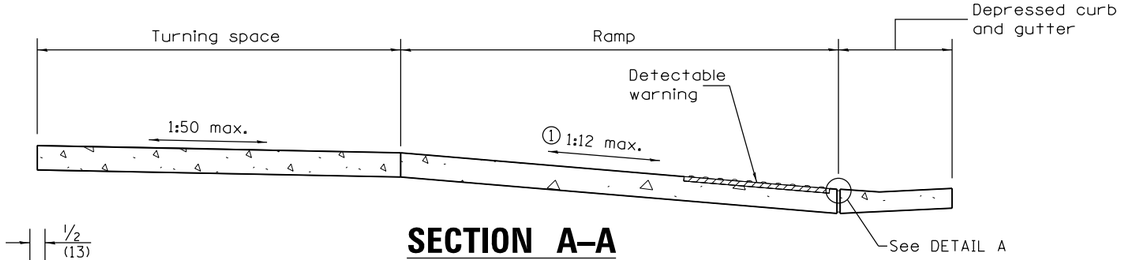
RAMP IN LANDSCAPED AREA



RAMP IN PAVED AREA

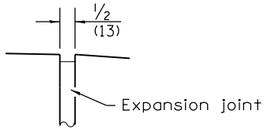


SIDE CURB DETAIL



SECTION A–A

① The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).



DETAIL A

GENERAL NOTES

This Standard shall only be used for curb radii of 20 ft. (6.1 m) or greater.

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5′ (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

Illinois Department of Transportation

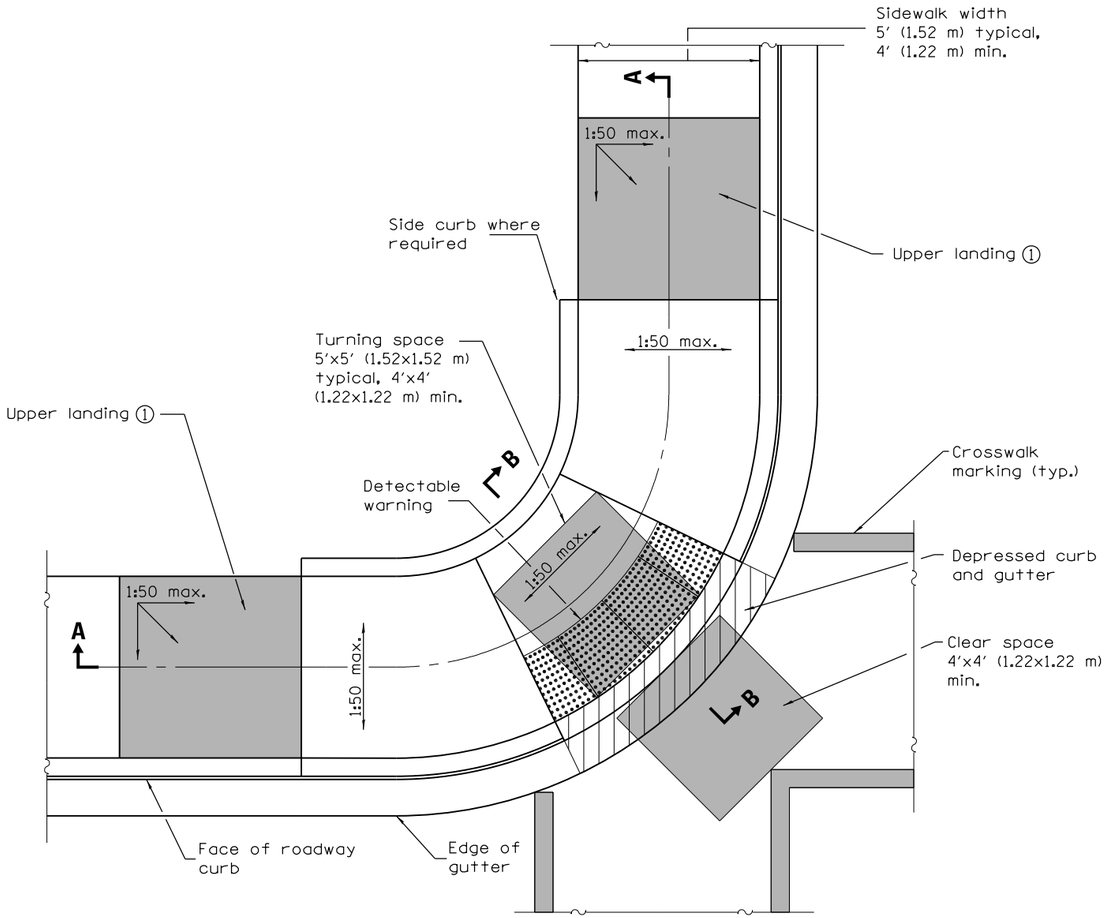
PASSED January 1. 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

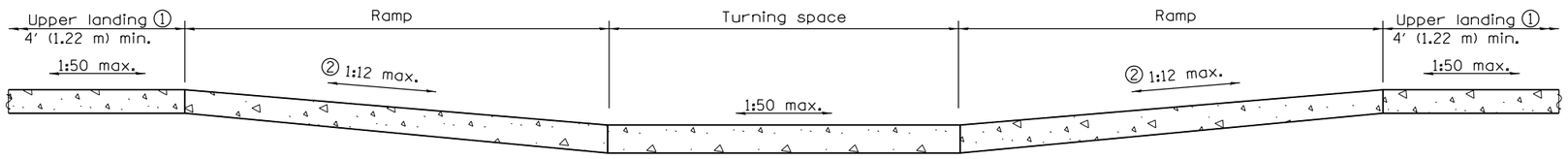
DATE	REVISIONS
1-1-15	Changed 'Upper landing' to
	'Turning space'. Added note
	reg. const. turning space.
1-1-13	Revised General Notes.

DIAGONAL CURB RAMPS FOR SIDEWALKS

STANDARD 424006–02



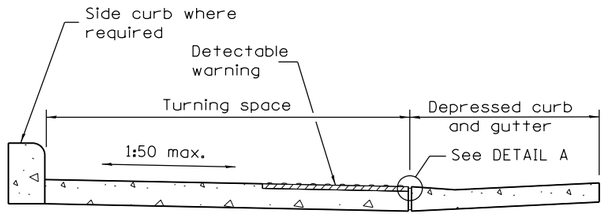
CORNER PARALLEL CURB RAMP



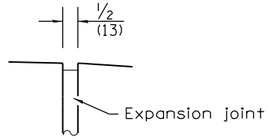
SECTION A–A

① Upper landing(s) not required for ramp slopes flatter than 1:20.

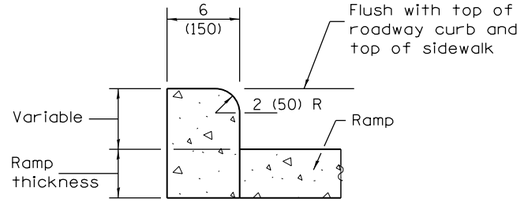
② The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).



SECTION B–B



DETAIL A



SIDE CURB DETAIL

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5′ (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

Illinois Department of Transportation

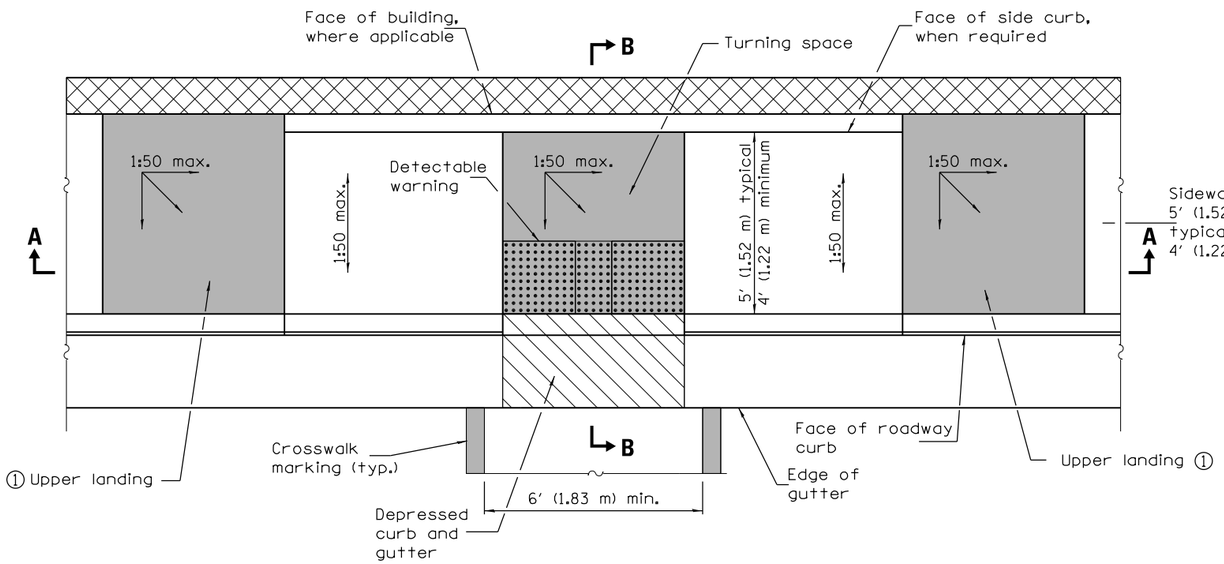
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

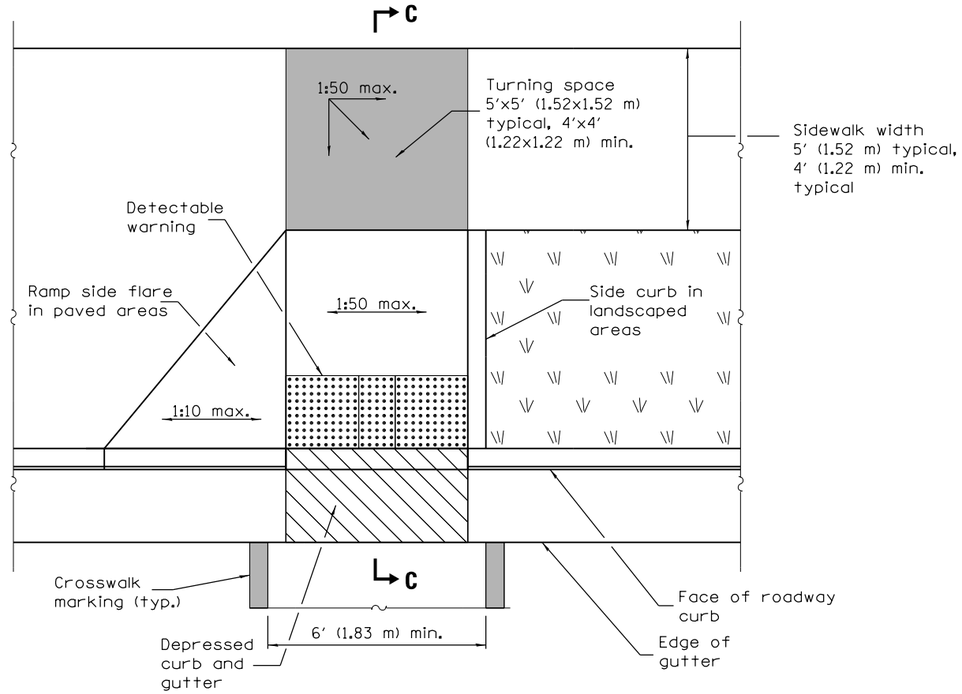
DATE	REVISIONS
1-1-15	Changed 'Lower landing' to
	'Turning space'. Added x-walk
	markings. Added note ②.
1-1-13	Revised General Notes.

CORNER PARALLEL CURB RAMPS FOR SIDEWALKS

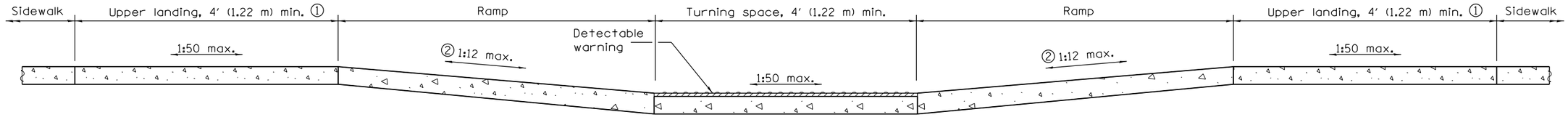
STANDARD 424011–02



PARALLEL MID–BLOCK CURB RAMP



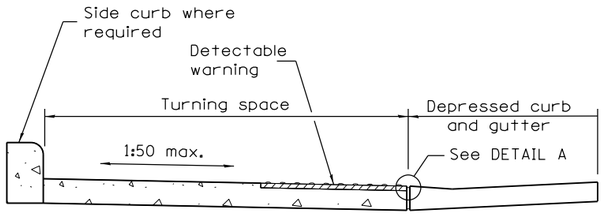
PERPENDICULAR MID–BLOCK CURB RAMP



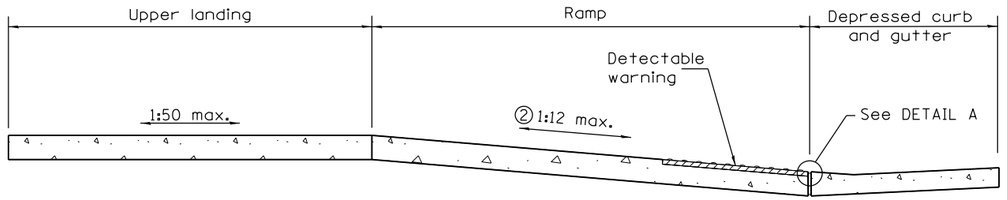
SECTION A–A

① Upper landing(s) not required for ramp slopes flatter than 1:20.

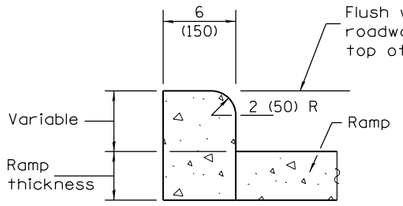
② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



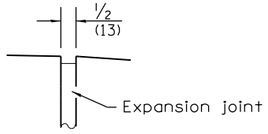
SECTION B–B



SECTION C–C



SIDE CURB DETAIL



DETAIL A

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

Illinois Department of Transportation

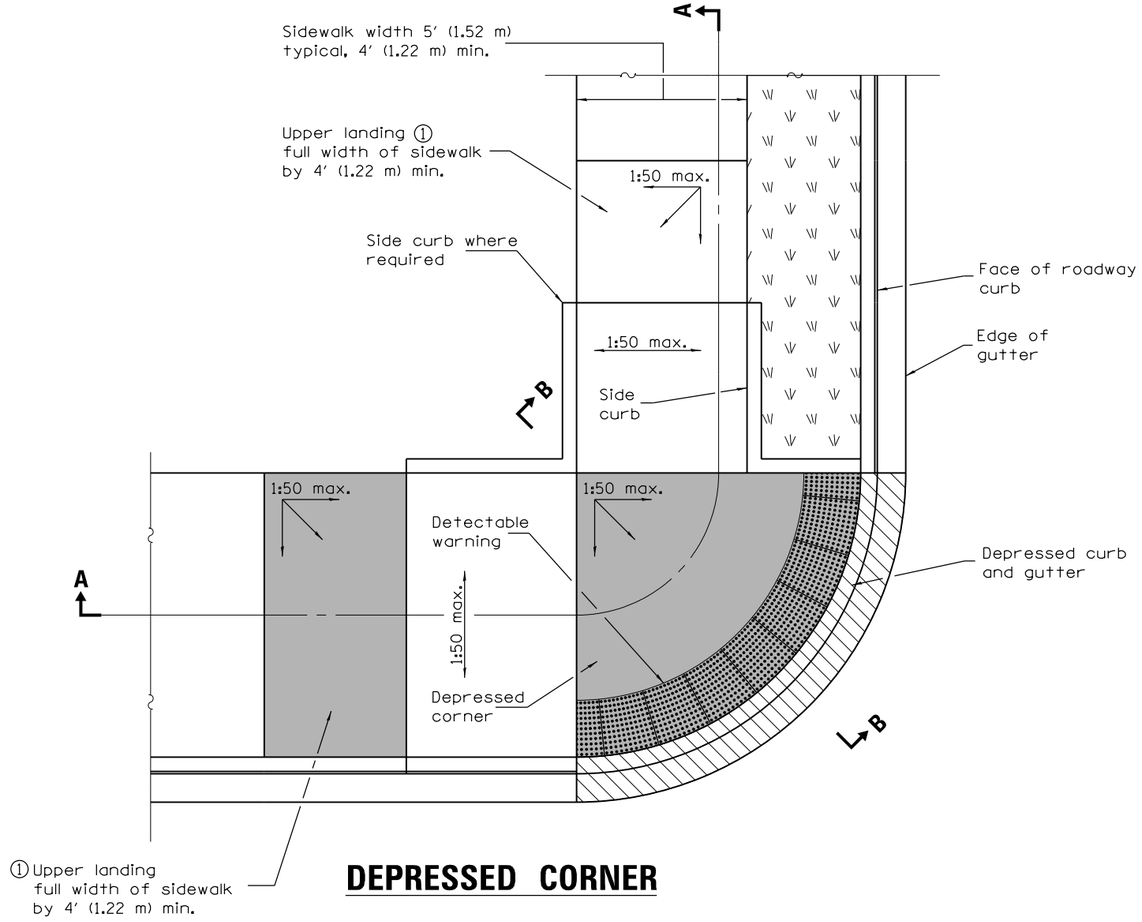
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

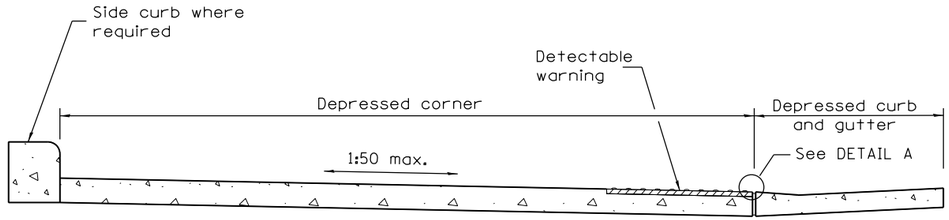
DATE	REVISIONS
1-1-15	Changed 'Lower landing' to
	'Turning space'. Added
	note ②. Rev. Gen. Notes.
1-1-13	Widened crosswalk markings
	to 6' (1.83 m) min. inside
	dimension. Rev. Gen. Notes.

MID–BLOCK CURB RAMPS FOR SIDEWALKS

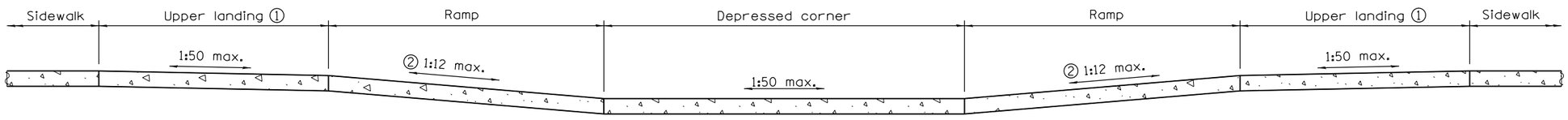
STANDARD 424016–02



DEPRESSED CORNER



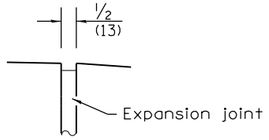
SECTION B–B



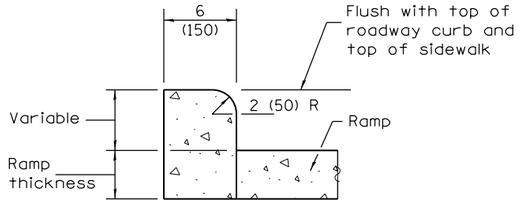
SECTION A–A

① Upper landing(s) not required for ramp slopes flatter than 1:20.

② The running slope of the curb ramp shall not require the ramp length to exceed 15′ (4.5 m).



DETAIL A



SIDE CURB DETAIL

GENERAL NOTES

This standard shall only be used for curb radii of 6 ft. (1.83 m) or greater.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

Illinois Department of Transportation

PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

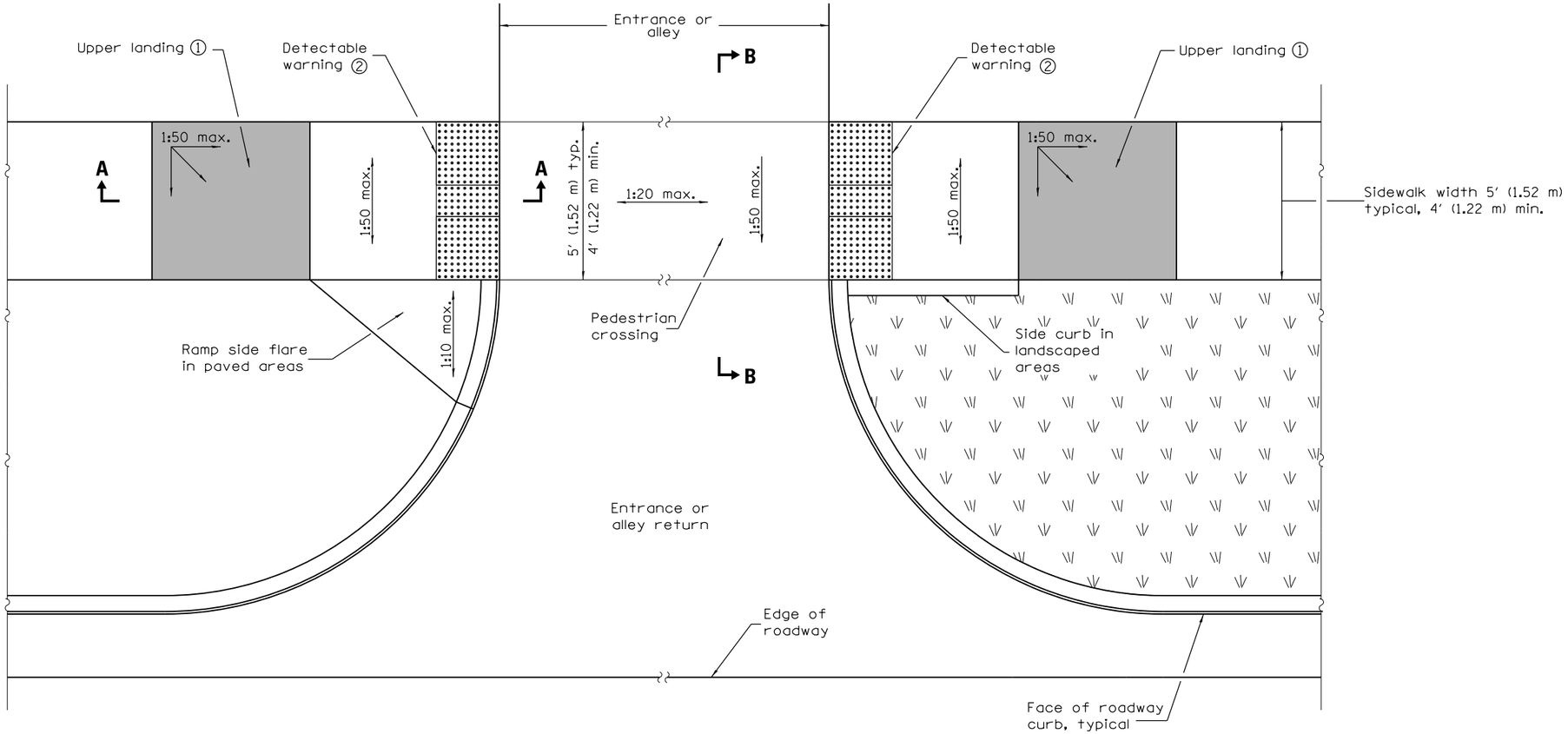
DATE	REVISIONS
1-1-15	Added note ②.
1-1-14	Revised sidewalk width.
	Revised gen. notes to limit
	curb rad. to 6′ (1.83 m) min.

DEPRESSED CORNER FOR SIDEWALKS

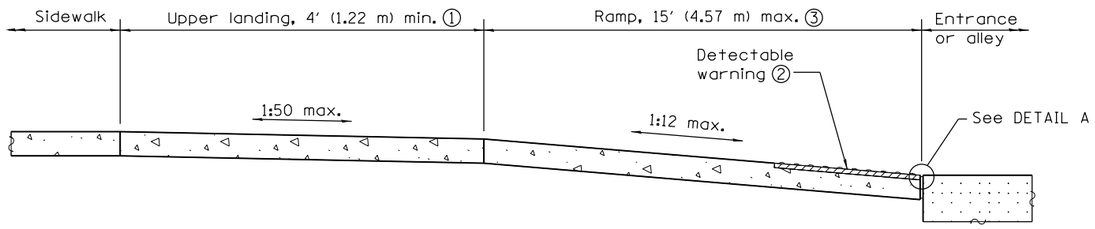
STANDARD 424021–03

② Detectable warning shall only be installed at entrances/alleys with permanent traffic control devices (i.e. stop signs, signals).

③ Where possible, maintain the grade of the sidewalk across the entrance/alley to avoid the need for ramps and upper landings.

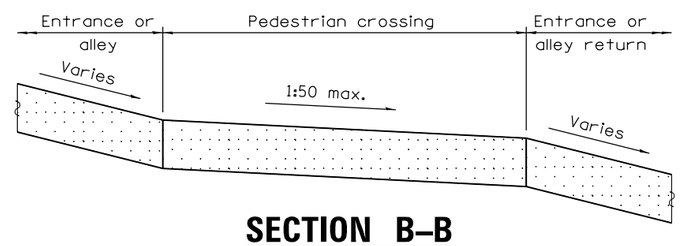


ENTRANCE /ALLEY PEDESTRIAN CROSSING

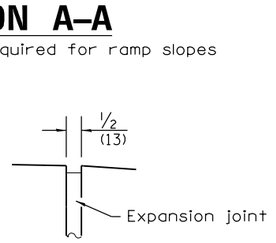


SECTION A–A

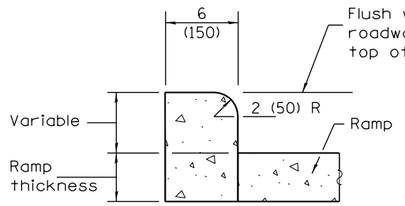
① Upper landing not required for ramp slopes flatter than 1:20.



SECTION B–B



DETAIL A



SIDE CURB DETAIL

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

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

Illinois Department of Transportation

PASSED January 1, 2013
Michael Brand
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APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

DATE	REVISIONS
1-1-13	Revised General Notes.
1-1-12	New standard.

ENTRANCE / ALLEY PEDESTRIAN CROSSINGS

STANDARD 424026–01

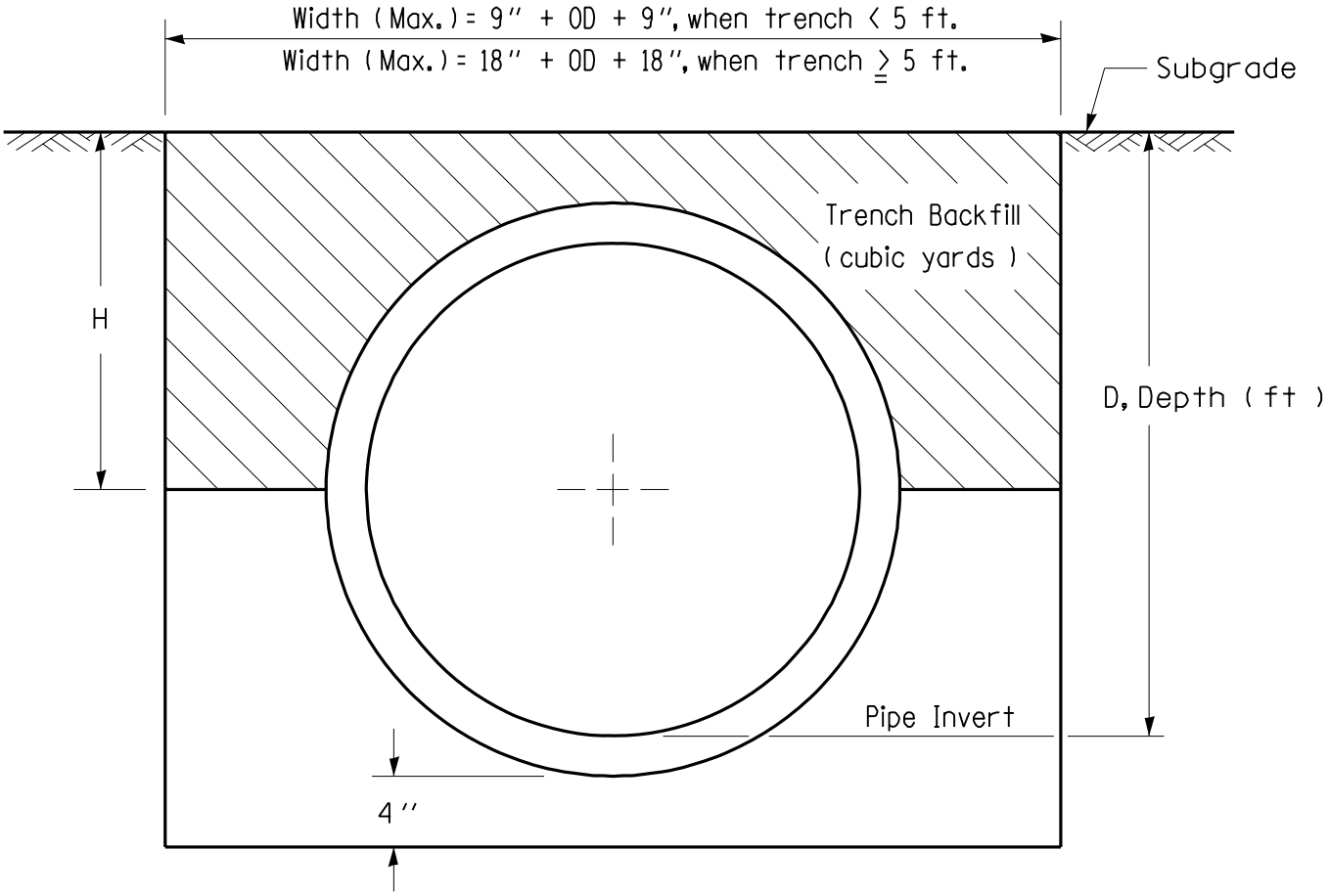
Section E

TRENCH BACKFILL TABLES FOR CONCRETE PIPES

These tables can be used by the designer or the field engineer to determine the volume of TRENCH BACKFILL that can be paid for when backfilling storm sewer trenches. Maximum trench widths adopted by the January 1, 2002 Standard Specifications are used.

NOTE: The calculated volumes are based on the use of standard **English sized pipes** which meet the tolerances of the Metric pay item.

TRENCH BACKFILL TABLE FOR CIRCULAR CONCRETE PIPE, ENGLISH



EXAMPLE

Given:	Pipe = 42” Storm Sewer	
	Average Depth, D = 6.8 feet	
	Trench Length = 84.7 feet	
Find:	Cubic Yards or TRENCH BACKFILL	
Solution:	From Table, Cubic yard/lin. ft.	= 1.093
	x Trench length	= x 84.7
	TRENCH BACKFILL	= 92.6 cu. yds.

NOTE: If the field engineer measures a width of trench less than the maximum permitted, the values included herein will be of no value. The actual volume of TRENCH BACKFILL used will therefore have to be calculated using the following formula:

$$\text{Cubic Yards} = \left[(H' \times W') - \left(\frac{\text{Pipe End Area}}{2} \right) \right] \times L' \times 1/27$$

VOLUME OF TRENCH BACKFILL (CU.YDS.) PER LINEAL FT. OF STORM SEWER

D(ft) = Average Depth of Trench from Subgrade to Invert of Pipe	Inside Diameter Wall thickness	8” 1.667”	10” 1.833”	12” 2.00”	15” 2.25”	18” 2.50”	21” 2.75”
	2.0	0.138	0.136	0.132	0.121	0.105	0.083
	2.2	0.156	0.155	0.152	0.143	0.130	0.111
	2.4	0.174	0.175	0.173	0.167	0.155	0.138
	2.6	0.192	0.194	0.194	0.190	0.180	0.166
	2.8	0.210	0.214	0.215	0.213	0.205	0.193
	3.0	0.228	0.234	0.236	0.236	0.231	0.220
	3.2	0.246	0.253	0.257	0.259	0.256	0.248
	3.4	0.264	0.272	0.278	0.282	0.281	0.275
	3.6	0.282	0.292	0.299	0.305	0.307	0.303
	3.8	0.300	0.311	0.320	0.329	0.332	0.330
	4.0	0.319	0.331	0.341	0.352	0.358	0.358
	4.2	0.336	0.350	0.362	0.375	0.383	0.385
	4.4	0.354	0.370	0.383	0.398	0.408	0.413
	4.6	0.610	0.622	0.632	0.642	0.647	0.647
	4.8	0.639	0.653	0.664	0.676	0.684	0.686
	5.0	0.668	0.683	0.696	0.711	0.720	0.724
	5.2	0.698	0.714	0.728	0.745	0.756	0.763
	5.4	0.727	0.745	0.760	0.779	0.793	0.801
	5.6	0.756	0.776	0.792	0.813	0.829	0.840
	5.8	0.785	0.807	0.824	0.848	0.866	0.879
	6.0	0.815	0.837	0.856	0.882	0.902	0.918
	6.2	0.844	0.867	0.888	0.916	0.938	0.956
	6.4	0.873	0.898	0.921	0.950	0.975	0.994
	6.6	0.903	0.929	0.953	0.985	1.011	1.033
	6.8	0.932	0.959	0.985	1.019	1.048	1.071
	7.0	0.961	0.990	1.017	1.053	1.084	1.110
	7.2	0.990	1.021	1.049	1.087	1.121	1.149
	7.4	1.019	1.051	1.081	1.122	1.157	1.187
	7.6	1.049	1.082	1.113	1.156	1.193	1.226
	7.8	1.078	1.113	1.145	1.190	1.230	1.264
	8.0	1.107	1.143	1.177	1.224	1.266	1.303
	8.2	1.136	1.174	1.209	1.259	1.303	1.342
	8.4	1.165	1.205	1.241	1.293	1.340	1.380
	8.6	1.195	1.235	1.274	1.328	1.376	1.419
	8.8	1.224	1.266	1.306	1.362	1.412	1.458
	9.0	1.253	1.297	1.338	1.396	1.449	1.496
	9.2	1.282	1.327	1.370	1.430	1.485	1.535
	9.4	1.311	1.358	1.402	1.465	1.522	1.574
	9.6	1.341	1.389	1.435	1.499	1.558	1.612
	9.8	1.370	1.419	1.467	1.533	1.594	1.651
	10.0	1.399	1.450	1.499	1.568	1.631	1.689
	10.2	1.428	1.481	1.531	1.602	1.667	1.728
	10.4	1.457	1.511	1.563	1.636	1.704	1.767
	10.6	1.487	1.542	1.595	1.671	1.740	1.805
	10.8	1.516	1.573	1.627	1.705	1.776	1.844
	11.0	1.545	1.603	1.659	1.739	1.813	1.882
	11.2	1.574	1.634	1.691	1.773	1.849	1.921
	11.4	1.603	1.665	1.723	1.808	1.886	1.960
	11.6	1.633	1.696	1.755	1.842	1.922	1.998
	11.8	1.662	1.726	1.788	1.876	1.958	2.037
	For each additional 0.2’ depth						
		+0.0292	+0.0307	+0.0321	+0.0343	+0.0364	+0.0386

VOLUME OF TRENCH BACKFILL (CU.YDS.) PER LINEAL FT. OF STORM SEWER

D(ft) = Average Depth of Trench from Subgrade to Invert of Pipe	Inside Diameter Wall thickness	24” 3.00”	27” 3.25”	30” 3.50”	33” 3.75”	36” 4.00”	42” 4.50”
	2.4	0.116					
	2.6	0.146	0.121				
	2.8	0.175	0.152	0.124			
	3.0	0.205	0.184	0.158			
	3.2	0.235	0.216	0.192	0.163		
	3.4	0.264	0.248	0.226	0.199	0.168	
	3.6	0.294	0.280	0.260	0.236	0.206	
	3.8	0.323	0.311	0.294	0.272	0.244	
	4.0	0.353	0.343	0.328	0.308	0.282	0.216
	4.2	0.383	0.375	0.362	0.344	0.321	0.259
	4.4	0.412	0.407	0.571	0.548	0.520	0.448
	4.6	0.642	0.632	0.616	0.595	0.569	0.502
	4.8	0.683	0.674	0.661	0.643	0.619	0.556
	5.0	0.723	0.717	0.706	0.690	0.668	0.610
	5.2	0.764	0.760	0.751	0.737	0.718	0.663
	5.4	0.805	0.803	0.796	0.784	0.767	0.717
	5.6	0.846	0.846	0.841	0.831	0.816	0.771
	5.8	0.886	0.889	0.886	0.879	0.866	0.824
	6.0	0.927	0.932	0.931	0.926	0.915	0.878
	6.2	0.968	0.975	0.976	0.973	0.964	0.932
	6.4	1.009	1.018	1.022	1.020	1.014	0.985
	6.6	1.049	1.061	1.067	1.068	1.063	1.039
	6.8	1.090	1.103	1.112	1.115	1.113	1.093
	7.0	1.131	1.146	1.157	1.162	1.162	1.147
	7.2	1.172	1.189	1.202	1.209	1.211	1.200
	7.4	1.212	1.232	1.247	1.256	1.261	1.254
	7.6	1.253	1.275	1.292	1.304	1.310	1.308
	7.8	1.294	1.318	1.337	1.351	1.359	1.361
	8.0	1.335	1.361	1.382	1.398	1.409	1.415
	8.2	1.375	1.404	1.427	1.445	1.458	1.469
	8.4	1.416	1.447	1.473	1.493	1.508	1.523
	8.6	1.457	1.490	1.518	1.540	1.557	1.577
	8.8	1.498	1.533	1.563	1.587	1.607	1.630
	9.0	1.539	1.576	1.608	1.635	1.656	1.684
	9.2	1.579	1.619	1.653	1.682	1.706	1.738
	9.4	1.620	1.662	1.698	1.729	1.755	1.791
	9.6	1.661	1.704	1.743	1.776	1.804	1.845
	9.8	1.701	1.747	1.788	1.823	1.854	1.899
	10.0	1.742	1.790	1.833	1.871	1.903	1.953
	10.2	1.783	1.833	1.878	1.918	1.953	2.006
	10.4	1.824	1.876	1.924	1.965	2.002	2.060
	10.6	1.864	1.919	1.968	2.012	2.051	2.114
	10.8	1.905	1.962	2.013	2.060	2.100	2.167
	11.0	1.946	2.005	2.058	2.107	2.150	2.221
	11.2	1.987	2.048	2.103	2.154	2.199	2.275
	11.4	2.028	2.091	2.148	2.201	2.249	2.328
	11.6	2.068	2.133	2.193	2.249	2.298	2.382
	11.8	2.109	2.176	2.239	2.296	2.347	2.436
	12.0	2.150	2.219	2.284	2.343	2.397	2.490
	12.2	2.191	2.262	2.329	2.390	2.446	2.543
	For each additional 0.2’ depth:						
		+0.0407	+0.0429	+0.0451	+0.0472	+0.0494	+0.0537

VOLUME OF TRENCH BACKFILL (CU.YDS.) PER LINEAL FT. OF STORM SEWER

D(ft) = Average Depth of Trench from Subgrade to Invert of Pipe	Inside Diameter Wall thickness	48” 5.00”	54” 5.50”	60” 6.00”	66” 6.50”	72” 7.00”	78” 7.50”
	4.6	0.414					
	4.8	0.472					
	5.0	0.530	0.430				
	5.2	0.588	0.492				
	5.4	0.646	0.555				
	5.6	0.704	0.617	0.509			
	5.8	0.762	0.679	0.576			
	6.0	0.820	0.742	0.643			
	6.2	0.878	0.804	0.709	0.594		
	6.4	0.936	0.866	0.776	0.665		
	6.6	0.994	0.929	0.843	0.736	0.608	
	6.8	1.052	0.991	0.909	0.807	0.683	
	7.0	1.110	1.053	0.976	0.878	0.759	
	7.2	1.168	1.116	1.043	0.949	0.834	0.699
	7.4	1.226	1.178	1.109	1.020	0.909	0.778
	7.6	1.284	1.240	1.176	1.091	0.985	0.858
	7.8	1.342	1.303	1.243	1.162	1.060	0.938
	8.0	1.400	1.365	1.309	1.233	1.135	1.017
	8.2	1.458	1.428	1.376	1.304	1.211	1.097
	8.4	1.517	1.490	1.443	1.375	1.286	1.177
	8.6	1.575	1.553	1.510	1.446	1.362	1.257
	8.8	1.633	1.615	1.576	1.517	1.437	1.336
	9.0	1.691	1.677	1.643	1.588	1.512	1.416
	9.2	1.749	1.739	1.710	1.659	1.588	1.495
	9.4	1.807	1.802	1.776	1.730	1.663	1.575
	9.6	1.865	1.864	1.843	1.801	1.738	1.655
	9.8	1.923	1.927	1.910	1.872	1.813	1.734
	10.0	1.981	1.989	1.977	1.943	1.889	1.814
	10.2	2.039	2.051	2.043	2.014	1.964	1.893
	10.4	2.097	2.113	2.110	2.085	2.039	1.973
	10.6	2.155	2.176	2.177	2.156	2.115	2.053
	10.8	2.213	2.238	2.243	2.227	2.190	2.132
	11.0	2.271	2.300	2.310	2.298	2.265	2.212
	11.2	2.329	2.363	2.377	2.369	2.341	2.292
	11.4	2.387	2.425	2.443	2.440	2.416	2.371
	11.6	2.445	2.487	2.509	2.511	2.491	2.451
	11.8	2.503	2.550	2.576	2.582	2.566	2.531
	12.0	2.561	2.612	2.643	2.653	2.642	2.610
	12.2	2.619	2.675	2.709	2.724	2.717	2.690
	12.4	2.677	2.738	2.776	2.795	2.792	2.770
	12.6	2.735	2.800	2.843	2.866	2.868	2.849
	12.8	2.793	2.862	2.909	2.937	2.943	2.929
	13.0	2.852	2.925	2.976	3.008	3.018	3.008
	13.2	2.910	2.987	3.043	3.079	3.094	3.088
	13.4	2.968	3.049	3.110	3.150	3.169	3.168
	13.6	3.026	3.111	3.176	3.221	3.244	3.247
	13.8	3.084	3.174	3.243	3.292	3.320	3.327
	14.0	3.142	3.236	3.310	3.363	3.395	3.407
	14.2	3.200	3.298	3.376	3.434	3.470	3.486
	12.4	3.258	3.361	3.443	3.505	3.545	3.566
	For each additional 0.2’ depth						
		+0.0580	+0.0623	+0.0667	+0.0710	+0.0753	+0.0796

VOLUME OF TRENCH BACKFILL (CU.YDS.) PER LINEAL FT. OF STORM SEWER

D(ft) = Average Depth of Trench from Subgrade to Invert of Pipe Inside Diameter Wall thickness	84” 8.00”	90” 8.50”	96” 9.00”	102” 9.50”	108” 10.00”
7.8	0.795				
8.0	0.879				
8.2	0.963				
8.4	1.047	0.896			
8.6	1.131	0.984			
8.8	1.215	1.073	0.910	0.726	0.522
9.0	1.299	1.161	1.002	0.823	0.623
9.2	1.382	1.249	1.095	0.920	0.724
9.4	1.466	1.338	1.187	1.017	0.825
9.6	1.550	1.426	1.280	1.114	0.927
9.8	1.634	1.514	1.373	1.211	1.028
10.0	1.718	1.602	1.467	1.307	1.129
10.2	1.802	1.690	1.558	1.404	1.230
10.4	1.886	1.778	1.650	1.501	1.331
10.6	1.970	1.866	1.743	1.598	1.433
10.8	2.054	1.955	1.835	1.695	1.534
11.0	2.138	2.043	1.928	1.792	1.635
11.2	2.222	2.131	2.021	1.889	1.737
11.4	2.306	2.220	2.113	1.986	1.838
11.6	2.390	2.308	2.206	2.083	1.939
11.8	2.474	2.396	2.298	2.180	2.040
12.0	2.558	2.485	2.391	2.277	2.141
12.2	2.642	2.573	2.484	2.374	2.243
12.4	2.726	2.661	2.576	2.471	2.344
12.6	2.810	2.749	2.669	2.567	2.445
12.8	2.894	2.838	2.761	2.664	2.547
13.0	2.978	2.926	2.854	2.761	2.648
13.2	3.062	3.014	2.947	2.858	2.749
13.4	3.146	3.102	3.039	2.955	2.850
13.6	3.230	3.191	3.132	3.052	2.951
13.8	3.314	3.279	3.224	3.149	3.053
14.0	3.398	3.367	3.317	3.246	3.154
14.2	3.482	3.455	3.410	3.343	3.255
14.4	3.566	3.544	3.502	3.440	3.357
14.6	3.649	3.632	3.595	3.537	3.458
14.8	3.733	3.720	3.687	3.634	3.559
15.0	3.817	3.809	3.780	3.730	3.660
15.2	3.901	3.897	3.873	3.827	3.761
15.4	3.985	3.985	3.965	3.924	3.863
15.6	4.069	4.074	4.058	4.021	3.964
15.8	4.153	4.162	4.150	4.118	4.065
16.0	4.237	4.250	4.243	4.215	4.166
16.2	4.321	4.338	4.335	4.312	4.268
16.4	4.405	4.426	4.428	4.409	4.369
16.6	4.488	4.515	4.521	4.506	4.470
16.8	4.572	4.603	4.613	4.603	4.571
17.0	4.656	4.691	4.706	4.699	4.672
17.2	4.740	4.780	4.798	4.796	4.774
17.4	4.824	4.868	4.891	4.893	4.875
17.6	4.908	4.956	4.984	4.990	4.976
For each additional 0.2’ depth:					
	+0.0839	+0.0883	+0.0926	+0.0969	+0.1012

SEALED BID LABEL – CUT OUT

Cut along outer border and affix this label to your sealed bid envelope to identify it as a "Sealed Bid".

SEALED BID – DO NOT OPEN

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PROPOSAL FOR:

2016 Road, Sewer, and Water Rehabilitation Program

PROPOSAL FROM: **(Insert your company name below)**

TIME OF OPENING: **10:00 A.M. local time**

DATE OF OPENING: **Tuesday, March 1, 2016**

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TO BE OPENED BY PURCHASING OFFICER ONLY

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MAIL TO:

Joan M. Schouten, CPIM CPPB
Purchasing Officer
City Hall /
City of Wheaton
P.O. BOX 0727
303 West Wesley Street
Wheaton, IL 60189-0727