



**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

Lake

Village of Gurnee

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

**FOR THE IMPROVEMENT OF**

STREET NAME OR ROUTE NO. Various

SECTION NO. 19-00000-01-GM

TYPES OF FUNDS MFT / Other

☒ SPECIFICATIONS (required)

☐ PLANS (required)

**For Municipal Projects**

Submitted/Approved/Passed

☒ Mayor ☐ President of Board of Trustees ☐ Municipal Official

Date

2/4/19

**Department of Transportation**

☒ Released for bid based on limited review

Regional Engineer

Date

1-24-19

**For County and Road District Projects**

Submitted/Approved

Highway Commissioner

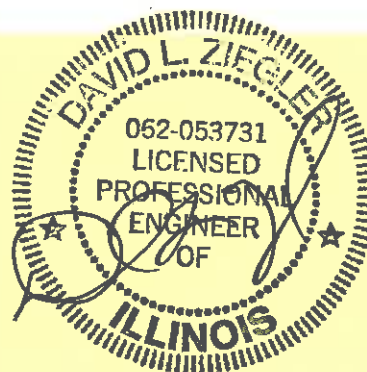
Date

Submitted/Approved

County Engineer/Superintendent of Highways

Date

**ON BEHALF OF IDOT PURSUANT TO AGREEMENT  
OF UNDERSTANDING DATED MARCH 17, 2004**



**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 Lake  
Local Public Agency Gurnee  
Section Number 19-00000-01-GM  
Route Various

Sealed proposals for the improvement described below will be received at the office of Village of Gurnee,  
325 N. O'Plaine Road until 10:30 AM on April 4, 2019  
Address Time Date

Sealed proposals will be opened and read publicly at the office of Village Engineer  
325 N. O'Plaine Road at 10:30 AM on April 4, 2019  
Address Time Date

### DESCRIPTION OF WORK

Name 2019 Street Maintenance Program - Gurnee Project # 8384 Length: 24,600 feet ( 4.6 miles)  
Location Various locations within the corporate limits of the Village of Gurnee, Lake County, Illinois.  
Proposed Improvement Hot-Mix Surf., Rem. Cl.-D Pavement Patching, Leveling Binder, HMA Surface Course, Curb  
Sidewalk Rem. & Repl., MH & Inlet Adj., Thermo.Pvmt. Marking and other associated items to complete the improvement

1. Plans and proposal forms will be available in the office of Village of Gurnee - Village Engineer at  
325 N. O' Plaine Road, Gurnee, IL 60031 for a Non-Refundable cost of \$50. (847) 599-7550  
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:

- BLR 12200: Local Public Agency Formal Contract Proposal
- BLR 12200a Schedule of Prices
- BLR 12230: Proposal Bid Bond (if applicable)
- BLR 12325: Apprenticeship or Training Program Certification (**do not use for federally funded projects**)
- 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 Lake  
 Local Public Agency Gurnee  
 Section Number 19-00000-01-GM  
 Route Various

### 1. Proposal of \_\_\_\_\_

for the improvement of the above section by the construction of Including but not limited to: Hot-Mix Asphalt Surface Rem., Pvmnt. Patching-CL-D, HMA Leveling Binder, HMA Surface Course, Area Ref. Crack Cntrol Sys., Curb & Sidewalk Rem & Repl., Inlet and MH Adjustment, Landscaping, Ditching, and other items associated to complete the improvements of Project #8355.

a total distance of 24,600 feet, of which a distance of 24,600 feet, ( 4.6 miles) are to be improved.

2. The plans for the proposed work are those prepared by Village of Gurnee Engineering Division 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 - working days or by 08/23/2019 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:

Village of Gurnee 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 19-00000-01-GM \_\_\_\_\_.
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.



# Illinois Department of Transportation

## SCHEDULE OF PRICES

County Lake  
 Local Public Agency Gurnee # 8384  
 Project MFT 19-00000-01-GM  
 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	COMB. CONC. CURB & GUTTER, B-6:12	FOOT	8200		
2	COMB. CONC. CURB & GUTTER, B-6:24	FOOT	50		
3	COMB. CONC. CURB & GUTTER, M-3:12	FOOT	3000		
4	COMBINATION CURB & GUTTER REMOVAL	FOOT	11250		
5	SIDEWALK REMOVAL	S.F.	11000		
6	P.C.C. SIDEWALK	S.F.	11000		
7	DETECTABLE WARNING TILES	EA.	68		
8	P.C.C. DRIVEWAY REM.& REPL. 6"	S.Y.	200		
9	HMA DRIVEWAY REM. AND REPL.	S.Y.	4400		
10	HMA SURFACE COURSE, MIX "C", N50	TON	9400		
11	HOT-MIX ASPHALT BASE COURSE, 4"	TON	340		
12	HMA BINDER COURSE, IL-19.0, N50	TON	1930		
13	BITUMINOUS MATERIAL (TACK COAT)	LB.	42000		
14	LEVELING BINDER (MACHINE MET.), N50	TON	4600		
15	MIX FOR JOINTS, CRACKS & FLNGWAYS.	TON	40		
16	PAVEMENT PATCHING-CLASS D, 10-INCH	S.Y.	1200		
17	PAVEMENT PATCHING-CLASS D, 8-INCH	S.Y.	500		
18	PAVEMENT PATCHING-CLASS D, 6-INCH	S.Y.	8250		
19	PAVEMENT PATCHING-CLASS D, 4-INCH	S.Y.	6200		
20	PAVEMENT PATCHING-CL. D, 2-INCH, SPL.	S.Y.	2000		
21	PAVEMENT PATCHING-CL D, 4-INCH, SPL.	S.Y.	5700		
22	PAVEMENT PATCHING-CL D, 6-INCH, SPL.	S.Y.	2600		
23	PAVEMENT PATCHING - CL B, 8-INCH, SPL.	S.Y.	1700		
24	PROTECTIVE COAT	S.Y.	1700		

PAGE 1 TOTAL:

**RETURN WITH BID**

Item No.	Items	Unit	Quantity	Unit Price	Total
25	AREA REFL. CRACK CNTRL TREAT., SYS A	S.Y.	16750		
26	HMA SURFACE REMOVAL-(COLD MILLING)	S.Y.	66000		
27	HMA REMOVAL, 3-1/2- INCHES	S.Y.	14200		
28	HMA REMOVAL, 6-INCHES	S.Y.	1500		
29	HMA SURFACE REMOVAL - BUTT JOINT	S.Y.	1850		
30	RAISED REFLECT. PAVMT MARKER REM	EA.	60		
31	UNSUITABLE SUBGRADE EX, CA-1 REPL.	C.Y.	545		
32	UNSUITABLE SUBGRADE EX, CA-6 REPL.	C.Y.	650		
33	AGGREGATE BASE REPAIR	TON	860		
34	PREPARATION OF BASE	S.Y.	16200		
35	AGGREGATE SHOULDERS, TY-B	TON	40		
36	GEOTECH FABRIC FOR GRND STABIL.	S.Y.	1500		
37	INLETS TO BE ADJUSTED	EA.	140		
38	INLETS TO BE RECONSTRUCTED	EA.	9		
39	MANHOLE TO BE ADJUSTED	EA.	16		
40	MANHOLE TO BE ADJUSTED, SPECIAL	EA.	4		
41	LANDSCAPING	S.Y.	2300		
42	GRADING AND SHAPING OF DITCHES	S.Y.	400		
43	INLET, TYPE-A, TY-1 FRAME AND LID	EA.	3		
44	STORM SEWER, 12" - PVC, SDR-26	FOOT	80		
45	PIPE CULVERT REMOVAL, 12"	FOOT	140		
46	PIPE CULVERT, 12" ALUM. STEEL, TY-2, CP	FOOT	60		
47	ALUMINUM END SECTIONS, 12" DIA.	EA.	4		
48	PIPE UNDER DRAINS, 4"	FOOT	60		
49	AGGREGATE FOR TEMPORARY ACCESS	TON	100		
50	TEMP. PAVEMENT MARKING, L & S	S.F.	200		
51	TEMP. PAVEMENT MARKING, 4" LINE	FOOT	300		
52	THERMOPLASTIC PAVMT. MARKING, 24" LINE	FOOT	500		
53	THERMOPLASTIC PAVMT. MARKING, 12" LINE	FOOT	1000		
54	THERMOPLASTIC PAVMT. MARKING, 6" LINE	FOOT	4200		
55	THERMOPLASTIC PAVMT. MARKING, 4" LINE	FOOT	6700		
56	THERMOPLASTIC PAVMT. MARKING, L & S	S.F.	350		
57	TRAFFIC CONTROL AND PROTECTION	L.S.	1		

**PAGE 2 TOTAL :**

**AMOUNT CARRIED FORWARD FROM PAGE 1 :**

**BIDDER'S PROPOSAL FOR ENTIRE IMPROVEMENTS:**

## CONTRACTOR CERTIFICATIONS

County	Lake
Local Public Agency	Gurnee
Section Number	19-00000-01-GM
Route	Various

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 Delinquency.** 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.

RETURN WITH BID

SIGNATURES

County Lake  
Local Public Agency Gurnee  
Section Number 19-00000-01-GM  
Route Various

(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

Bureau of Construction  
2300 South Dirksen Parkway/Room 322  
Springfield, Illinois 62764

## Affidavit of Availability For the Letting of \_\_\_\_\_

structions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued less both sides of this form are completed in detail. Use additional forms as needed to list all work.

### Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show **NONE**.

	1	2	3	4	Awards Pending	
Contract Number						
Contract With						
Estimated Completion Date						
Total Contract Price						Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor						
Uncompleted Dollar Value if Firm is the Subcontractor						
Total Value of All Work						

### Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show **NONE**.

						Accumulated Totals
Earthwork						
Portland Cement Concrete Paving						
HMA Plant Mix						
HMA Paving						
Clean & Seal Cracks/Joints						
Aggregate Bases & Surfaces						
Highway, R.R. and Waterway Structures						
Drainage						
Electrical						
Cover and Seal Coats						
Concrete Construction						
Landscaping						
Fencing						
Guardrail						
Painting						
Signing						
Cold Milling, Planning & Rotomilling						
Demolition						
Pavement Markings (Paint)						
Other Construction (List)						
						\$ 0.00
Totals						

Disclosure of this information is **REQUIRED** to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.



**Part III. Work Subcontracted to Others.**

For each contract described in Part I, list all the work you have subcontracted to others.

	1	2	3	4	Awards Pending
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted					

I, being duly sworn, do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ Type or Print Name \_\_\_\_\_ Officer or Director \_\_\_\_\_ Title \_\_\_\_\_

Signed \_\_\_\_\_

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

(Notary Seal)

Company \_\_\_\_\_

Address \_\_\_\_\_



**Illinois Department  
of Transportation**

**Substance Abuse  
Prevention  
Program Certification**

Letting Date: 4/4/2019 Item No.: \_\_\_\_\_  
Contract No.: \_\_\_\_\_  
Route: Various  
Section: 19-00000-01-GM  
Job No.: \_\_\_\_\_  
County: Lake

The Substance Abuse Prevention on Public Works Act, Public Act 95-0635, prohibits the use of drugs and alcohol, as defined in the Act, by employees of the Contractor and by employees of all approved Subcontractors while performing work on a public works project. The Contractor/Subcontractor herewith certifies that it has a superseding collective bargaining agreement or makes the public filing of its written substance abuse prevention program for the prevention of substance abuse among its employees who are not covered by a collective bargaining agreement dealing with the subject as mandated by the Act.

- A. The undersigned representative of the Contractor/Subcontractor certifies that the contracting entity has signed collective bargaining agreements that are in effect for all of its employees, and that deal with the subject matter of Public Act 95-0635.

\_\_\_\_\_  
Contractor/Subcontractor

\_\_\_\_\_  
Name of Authorized Representative (type or print)

\_\_\_\_\_  
Title of Authorized Representative (type or print)

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

- B. The undersigned representative of the Contractor/Subcontractor certifies that the contracting entity has in place for all of its employees not covered by a collective bargaining agreement that deals with the subject of the Act, the attached substance abuse prevention program that meets or exceeds the requirements of Public Act 95-0635.

\_\_\_\_\_  
Contractor/Subcontractor

\_\_\_\_\_  
Name of Authorized Representative (type or print)

\_\_\_\_\_  
Title of Authorized Representative (type or print)

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date



Route Various  
County Lake  
Local Agency Gurnee  
Section 19-00000-01-GM

**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)

\_\_\_\_\_  
(Company Name)

By: \_\_\_\_\_  
(Signature and Title)

By: \_\_\_\_\_  
(Signature and Title)

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

**Surety**

By: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(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



Return with Bid

Route  
County  
Local Agency  
Section

Various  
Lake  
Gurnee  
19-00000-01-GM

**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: \_\_\_\_\_



**Illinois Department  
of Transportation**

**Affidavit of Illinois Business Office**

County Lake  
Local Public Agency Gurnee  
Section Number 19-00000-01-GM  
Route Various

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

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)

# VILLAGE OF GURNEE

## 2019 STREET MAINTENANCE PROGRAM

### PROJECT # 8384

### DESCRIPTION OF WORK

The following is a list of streets with limits and a brief work description for each street for the 2019 Street Maintenance Program:

Area 1		
West Side (Timberwoods / Kingsport)		
STREETS	LIMITS	DESCRIPTION
Dada Drive	Almond Rd. to W. of Nottingham Dr.	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay, pavement marking.
Kingsport Drive	Washington St. to Cascade Way	Surface milling, HMA patching, curb & sidewalk repairs, reflective crack control, leveling binder, surface overlay.
Magical Lane	Kingsport Dr. to E. End	Surface milling, HMA patching, curb & sidewalk repairs, reflective crack control, leveling binder, surface overlay.
Brentwood Lane	Old Walnut Cir, to W. End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder and surface overlay.
Clarewood Lane	Old Walnut Cir, to Brentwood Ln.	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder and surface overlay.
Bradford Court	Old Walnut Cir, to W. End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder and surface overlay.
Pinehurst Court	Brentwood Ln. to S. End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder and surface overlay.
Gurnee Glen	Hunt Club Rd. to 250' W. of Hunt Club	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder and surface overlay.
Area 2		
West Side (Graystone / Ravinia)		
STREETS	LIMITS	DESCRIPTION
Laurel Lane	Dada Dr. (W) to Dada Dr. (E)	Surface milling, HMA patching, curb & sidewalk repairs, reflective crack control, leveling binder, surface overlay.
Clavey Lane	Knowles Rd. to Nursery Dr.	Surface milling, HMA patching, curb & sidewalk repairs, reflective crack control, leveling binder, surface overlay.
Scarborough Drive	Rollins Rd. to Scranton Dr.	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk repairs,
Scranton Drive	Scarborough Dr. to Nursery Dr.	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk repairs,
Garnacha Drive	Washington St. to Cascade Way	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk repairs,

# VILLAGE OF GURNEE

## 2019 STREET MAINTENANCE PROGRAM

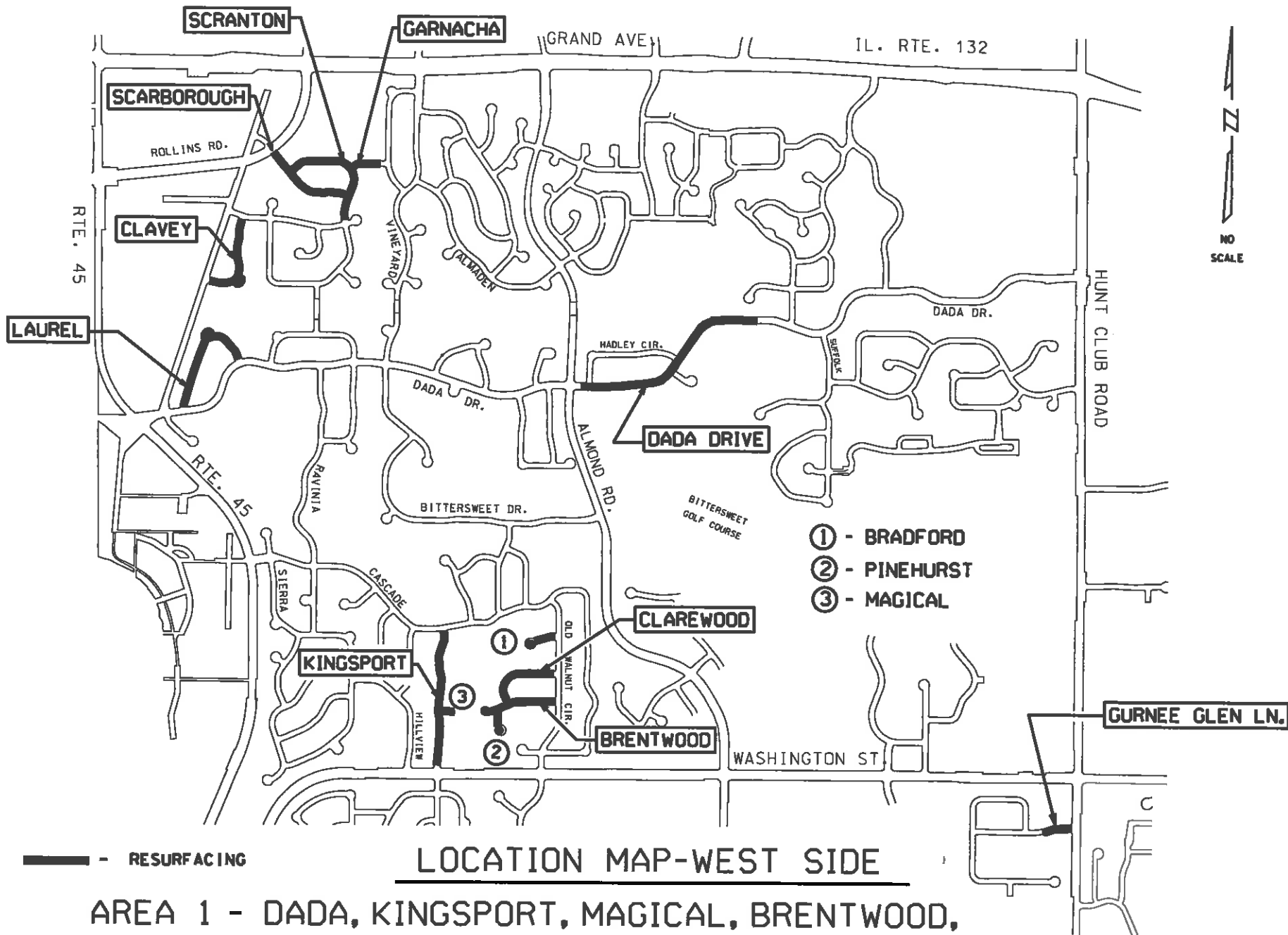
### PROJECT # 8384

### DESCRIPTION OF WORK

The following is a list of streets with limits and a brief work description for each street for the 2019 Street Maintenance Program:

Area 3		
Providence / East Side		
STREETS	LIMITS	DESCRIPTION
Majestic Court	Providence Rd. to N. End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay.
Calvin Court	Providence Rd. to N. End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay.
Queen Ann Lane	North End to South End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay.
Williamsburg Ave.	Longmeadow Dr. S. of Cornell Av.	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk repairs.
Cornell Avenue	O'Plaine Rd. to Williamsburg Av.	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk repairs,
Angelo Avenue	Longmeadow De, to Eastwood Av.	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay. S-1/2. 3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk. N-1/2.
Harper Avenue	Estes St. to West End	3-1/2" Milling, base prep., HMA binder crse, surface placement, curb & sidewalk. N-1/2.
Jeffery Avenue	First St. to Delany Rd.	6" Milling, base repairs, HMA base course, surface placement, culvert rem. & repl., grading and shaping of ditches. E-1/2. Surface milling, HMA patching, level binder, surface overlay. W-1/2.
Area 4		
Tri-State Pkwy / Woodlake Blvd / Morrison Dr.		
STREETS	LIMITS	DESCRIPTION
Tri-State Parkway	Washington St. to Lakeside Dr.	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay, pavement marking.
Woodlake Blvd.	Milwaukee (N) to Milwaukee (S)	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay, pavement marking.
Morisson Drive	Delany Rd. to East End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay, pavement marking.
Dilley's Rd.	Delany Rd. to East End	Surface milling, HMA patching, curb & sidewalk repairs, leveling binder, surface overlay, pavement marking.
Misc.		
HMA Patching, PCC Patching and Pavement Marking		
Various Locations	* See patching logs for locations	Misc. Curb Removal and Replacement

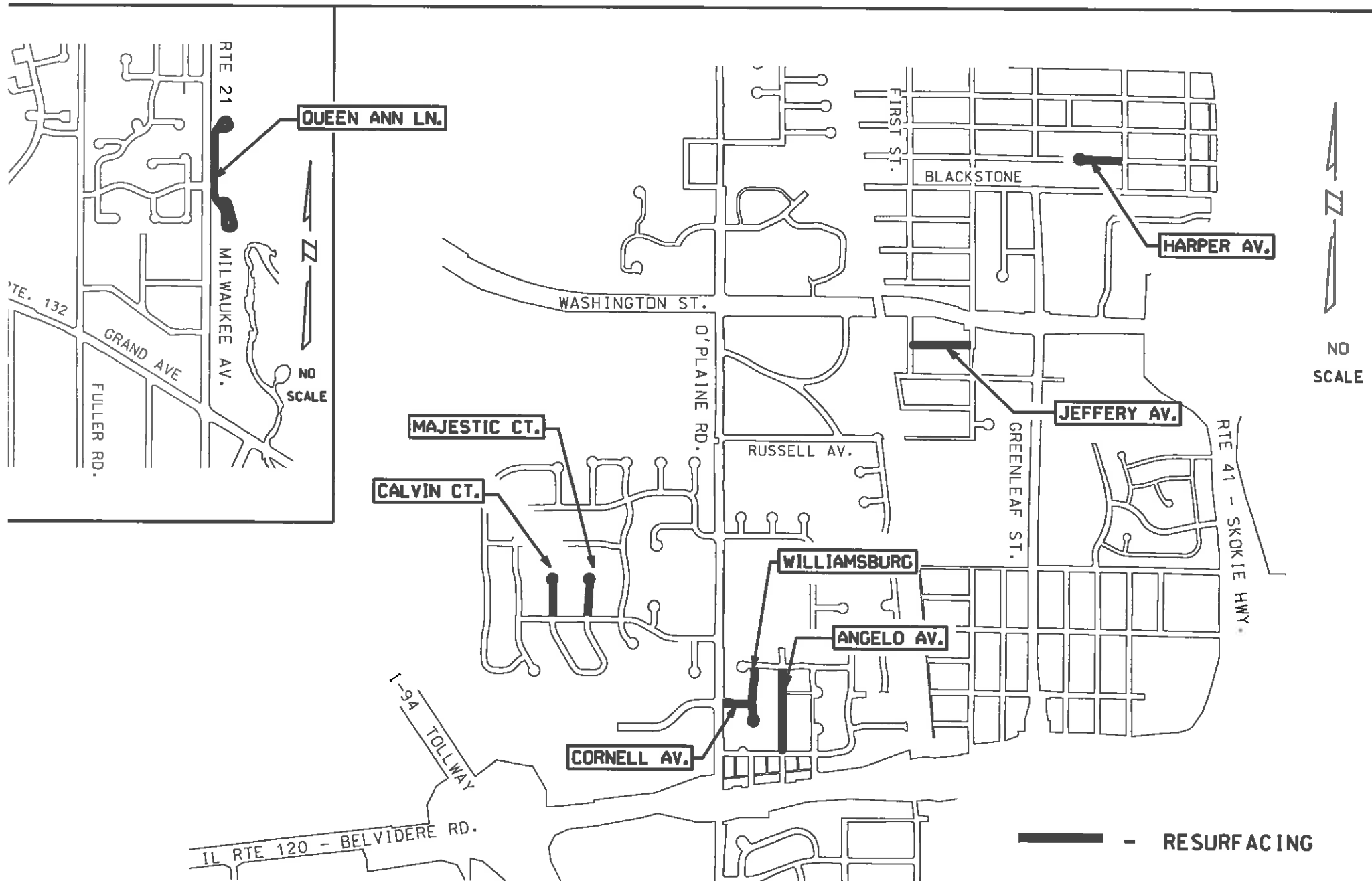




### LOCATION MAP-WEST SIDE

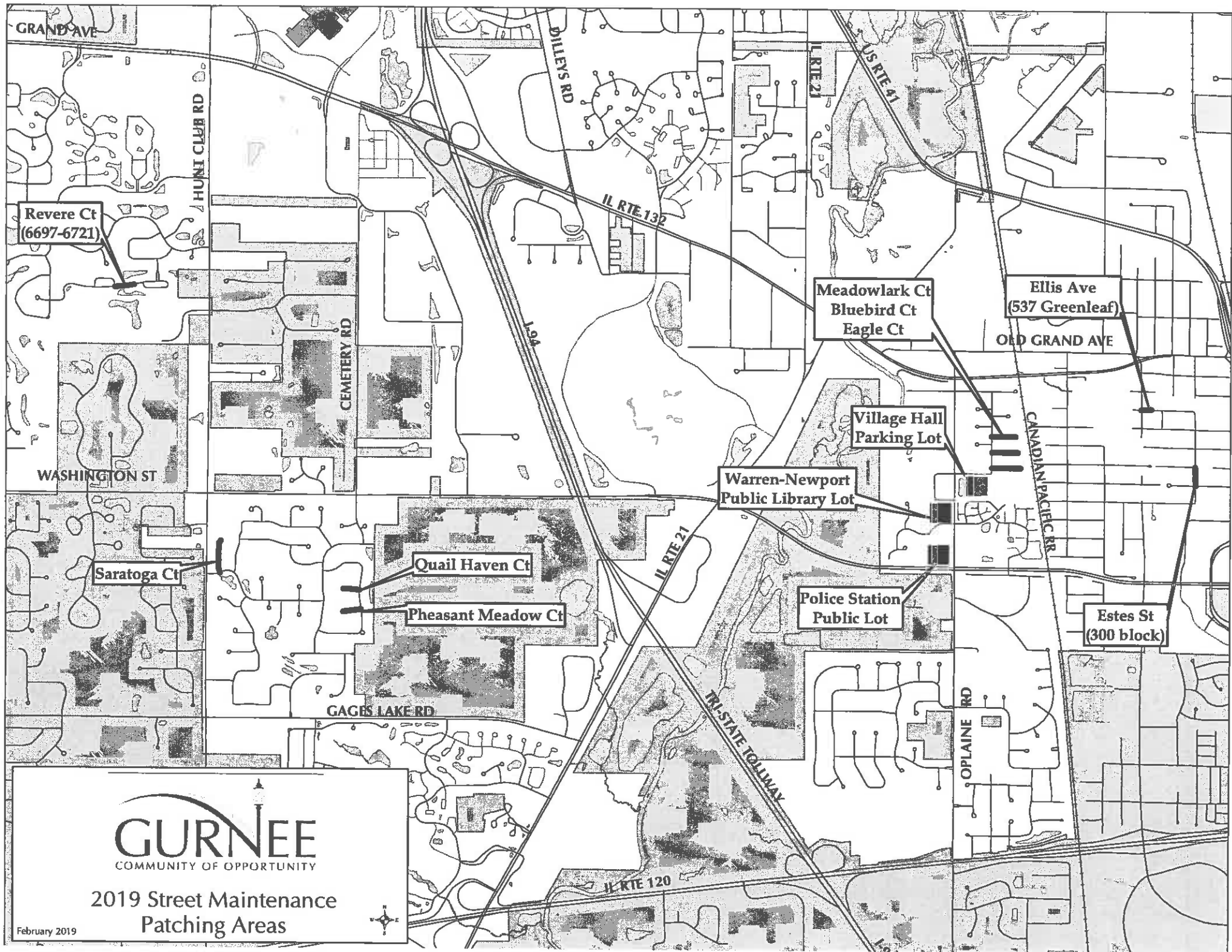
AREA 1 - DADA, KINGSFORT, MAGICAL, BRENTWOOD,  
BRADFORD, CLAREWOOD, PINEHURST, GURNEE GLEN

AREA 2 - LAUREL, CLAVEY, SCARBOROUGH, SCRANTON, GARNACHA.



LOCATION MAP-PROVIDENCE / QUEEN ANN / JEFFERY / HARPER  
AREA 3





**2019 STREET MAINTENANCE PROJECT - MFT 19-00000-01-GM  
VILLAGE PROJECT NO. 8384**

**VILLAGE OF GURNEE - PATCHING LOG ESTIMATE SHEET**

Pavement Patching, Class D - Special					Pavement Patching, Class B - Special		
		HMA			PCC		
		2	4	6		8	
		inch	inch	inch		inch	
ID	Location	(sy)	(sy)	(sy)		(sy)	Remarks
South Ridge Subdivision							
	Pheasant Meadow Ct.	50		250			N & S edge patching - 4' wide
	Quail Haven Ct.	200		150			Various edge patching and partial area of cul-de-sac
	Saratoga Ct.	200		150			Various edge patching and partial area of cul-de-sac
Big Oaks Subdivision							
	Meadowlark Ct					1300	PCC Class B patching with integral M-3:12 curb
	Bluebird Ct.					200	PCC Class B patching with integral M-3:12 curb
	Eagle Ct.					200	PCC Class B patching with integral M-3:12 curb
Village Hall Parking Lot							
		500	2000	250			Approx. 250 lf of B-6:12 removal and replacement.
							Work to be performed on Saturdays or as approved scheduled by Engineer
Police Station Public Lot							
		200	2000	300			
WNPL Library Parking Lot							
		500	1500	500			Various areas-contractor shall coordinate with Engineer & library to schedule closures of lot areas for patching.
Revere Ct.							
	6697-6721	150		400			
Ellis Ave.							
	537 (East of Greanleaf)	100		150			
Estes St.							
	300-400 Block	100	200	450			Various edge patching (agg shoulder installation)
	TOTALS =	2000	5700	2600		1700	

AREA 1 - SUMMARY SHEET			STREET :	Dada Dr.	Kingsport Dr.	Magical Ln.	Bradford Ct.	Brentwood Ln.	Clarewood Ln.	Pinehurst Ct.	Gurnee Glenn
VILLAGE OF GURNEE - PROJECT # 8384				Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	
2019 MFT STREET MAINTENANCE PROGRAM				1-1/2" surf, 3" Bind, 7" BAM	1-1/2" surf BAM	1-1/2" surf BAM	1-1/2" surf., 2" Bind, 6" BAM	1-1/2" surf., 2" Bind, 6" BAM	1-1/2" surf., 2" Bind, 6" BAM	1-1/2" surf., 2" Bind, 6" BAM	
MFT # 19-00000-01-GM											
			Maint. Proposed	Mill and OL	Mill and OL	Mill and OL	Mill and OL	Mill and OL	Mill and OL	Mill and OL	Mill and OL
			LENGTH (FT.)	1600	1600	150	450	850	870	400	250
			WIDTH (FT.) e-e	34	28	28	28	28	28	28	VARIES
			AREA (S.Y.)	6300	4850	500	1550	2800	2750	1200	900
			STREET NAME:	Dada Dr.	Kingsport Dr.	Magical Ln.	Bradford Ct.	Brentwood Ln.	Clarewood Ln.	Pinehurst Ct.	Gurnee Glenn
ITEM NO	ITEM	UNIT	AMOUNT	(ALMOND - 500' E. OF TYME)	(CASCADE - WASHINGTON)	(KINGSPORT - E. END)	(OLD WALNUT - W. END)	(OLD WALNUT - W. END)	(OLD WALNUT - BRENTWOOD)	(BRENTWOOD - S. END)	(WEST OF HUNT CLUB RD)
1	COMB. CONC. CURB & GUTTER, TYPE B-6:12	FOOT	3800	1000	0	50	300	1000	1200	200	50
2	COMB. CONC. CURB & GUTTER, TYPE B-6:24	FOOT	50	50	0	0	0	0	0	0	0
3	COMB. CONC. CURB & GUTTER, TYPE M-3:12	FOOT	600	0	600	0	0	0	0	0	0
4	COMBINATION CURB & GUTTER REMOVAL	FOOT	4450	1050	600	50	300	1000	1200	200	50
5	SIDEWALK REMOVAL	S.F.	4150	800	1000	50	600	1100	500	100	0
6	P.C.C. SIDEWALK	S.F.	4150	800	1000	50	600	1100	500	100	0
7	DETECTABLE WARNING TILES	EA.	14	2	4	0	2	4	2	0	0
8	P.C.C. DRIVEWAY REM.& REPL. 6"	S.Y.	0	0	0	0	0	0	0	0	0
9	HMA DRIVEWAY REMOVAL AND REPLACEMENT	S.Y.	1990	600	400	40	120	320	400	80	30
10	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	2480	750	570	60	200	340	320	140	100
11	HOT-MIX ASPHALT BASE COURSE, 4"	TON	0	0	0	0	0	0	0	0	0
12	HMA BINDER COURSE, IL-19.0, N50	TON	0	0	0	0	0	0	0	0	0
13	BITUMINOUS MATERIAL (PRIME COAT)	LB.	12100	4500	2500	300	1000	1300	1500	500	500
14	LEVELING BINDER (MACHINE MET.), N50	TON	1290	400	300	30	100	160	180	80	60
15	MIXTURE FOR JOINTS, CRACKS AND FLANGEWAYS	TON	16	5	5	0	2	2	2	0	0
16	PAVEMENT PATCHING-CLASS D, 10-INCH	S.Y.	500	500	0	0	0	0	0	0	0
17	PAVEMENT PATCHING-CLASS D, 8-INCH	S.Y.	250	100	0	0	100	0	50	0	0
18	PAVEMENT PATCHING-CLASS D, 6-INCH	S.Y.	3250	100	1200	100	250	700	600	200	100
19	PAVEMENT PATCHING-CLASS D, 4-INCH	S.Y.	1700	500	500	100	100	200	100	200	0
20	PAVEMENT PATCHING-CLASS D, 2-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
21	PAVEMENT PATCHING-CLASS D, 4-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
22	PAVEMENT PATCHING-CLASS D, 6-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
23	PAVEMENT PATCHING - CLASS B, 8-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
24	PROTECTIVE COAT	S.Y.	0	0	0	0	0	0	0	0	0
25	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	S.Y.	5350	0	4850	500	0	0	0	0	0
26	HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING)	S.Y.	19150	6000	4800	500	1500	2800	2700	0	850
27	HOT-MIX ASPHALT SURFACE REMOVAL, 3-1/2- INCHES	S.Y.	0	0	0	0	0	0	0	0	0
28	HOT-MIX ASPHALT SURFACE REMOVAL, 6-INCHES	S.Y.	0	0	0	0	0	0	0	0	0
29	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	S.Y.	550	300	50	0	50	50	50	0	50
30	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EA.	60	60	0	0	0	0	0	0	0
31	UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT	C.Y.	0	0	0	0	0	0	0	0	0
32	UNSUITABLE SUBGRADE EXCAVATION, CA-6 REPLACEMENT	C.Y.	10	10	0	0	0	0	0	0	0
33	AGGREGATE BASE REPAIR	TON	0	0	0	0	0	0	0	0	0
34	PREPARATION OF BASE	S.Y.	0	0	0	0	0	0	0	0	0
35	AGGREGATE SHOULDERS, TY-B	TON	0	0	0	0	0	0	0	0	0
36	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	S.Y.	0	0	0	0	0	0	0	0	0
37	INLETS TO BE ADJUSTED	EA.	45	14	15	0	3	4	6	1	2
38	INLETS TO BE RECONSTRUCTED	EA.	2	1	0	0	0	0	0	0	1
39	MANHOLE TO BE ADJUSTED	EA.	5	4	0	0	1	0	0	0	0
40	MANHOLE TO BE ADJUSTED, SPECIAL	EA.	0	0	0	0	0	0	0	0	0
41	LANDSCAPING	S.Y.	700	200	200	0	50	200	0	50	0
42	GRADING AND SHAPING OF DITCHES	S.Y.	0	0	0	0	0	0	0	0	0
43	INLET, TYPE-A, TY-1 FRAME AND LID	EA.	0	0	0	0	0	0	0	0	0
44	STORM SEWER, 12" - PVC, SDR-26	FOOT	0	0	0	0	0	0	0	0	0
45	PIPE CULVERT REMOVAL, 12"	FOOT	0	0	0	0	0	0	0	0	0
46	PIPE CULVERTS, 12" ALUMINIZED STEEL, TY-2, CP	FOOT	0	0	0	0	0	0	0	0	0
47	ALUMINUM END SECTIONS, 12" DIA.	EA.	0	0	0	0	0	0	0	0	0
48	PIPE UNDER DRAINS, 4"	FOOT	20	10	0	0	10	0	0	0	0
49	AGGREGATE FOR TEMPORARY ACCESS	TON	0	0	0	0	0	0	0	0	0
50	TEMPORARY PAVEMENT MARKING, LETTERS & SYMBOLS	S.F.	50	0	0	0	0	0	0	0	50
51	TEMPORARY PAVEMENT MARKING, 4" LINE	FOOT	100	0	0	0	0	0	0	0	100
52	THERMOPLASTIC PVMT. MARKING, 24" LINE	FOOT	110	60	0	0	0	0	0	0	50
53	THERMOPLASTIC PVMT. MARKING, 12" LINE	FOOT	500	300	0	0	0	0	0	0	200
54	THERMOPLASTIC PVMT. MARKING, 6" LINE	FOOT	3300	3200	0	0	0	0	0	0	100
55	THERMOPLASTIC PVMT. MARKING, 4" LINE	FOOT	3900	3700	0	0	0	0	0	0	200
56	THERMOPLASTIC PVMT. MARKING, LETTERS & SYMBOLS	S.F.	80	40	0	0	0	0	0	0	40
57	TRAFFIC CONTROL AND PROTECTION	L.S.	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0	0

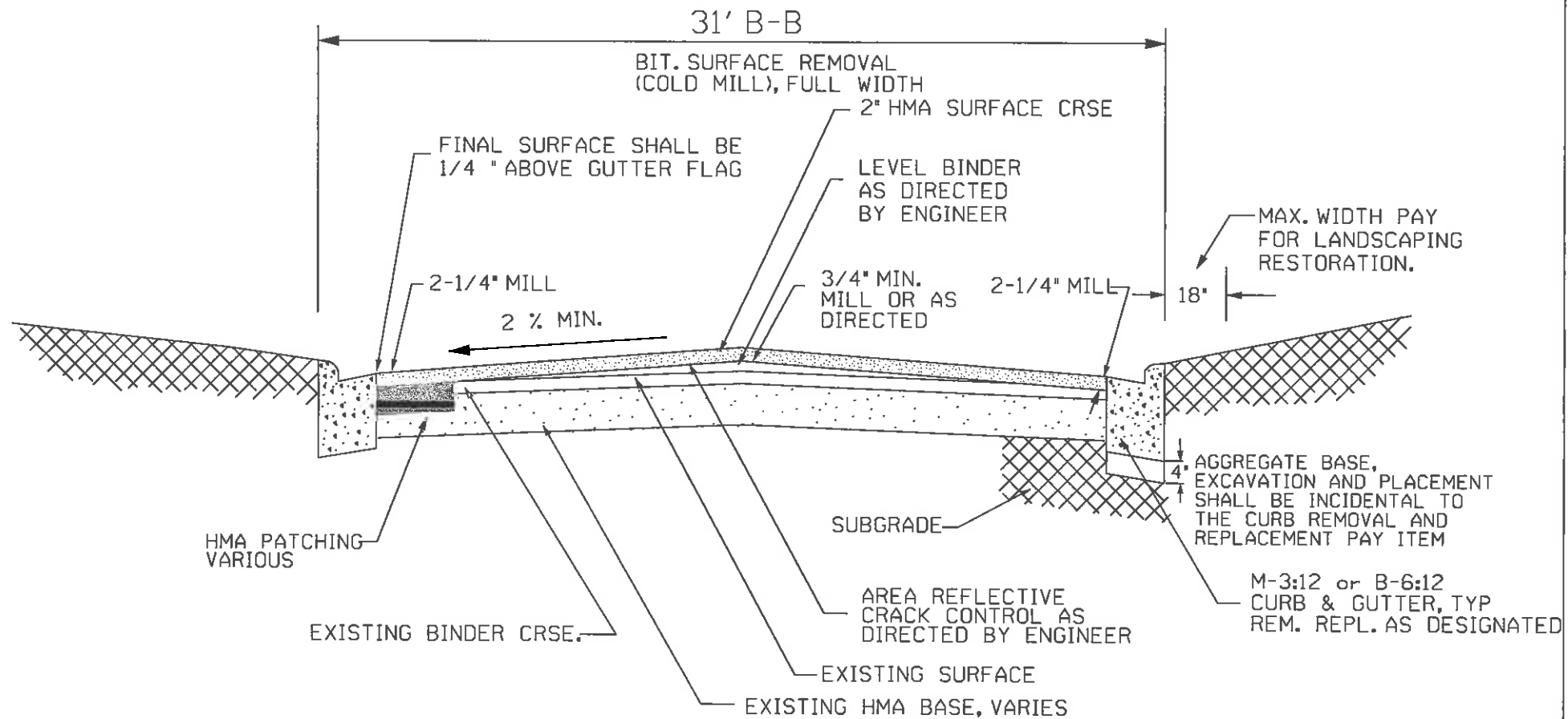
AREA 2 - SUMMARY SHEET			STREET :	Laurel Ln.	Clavey Ln.	Scarborough Dr.	Scranton Dr.	Garnacha Dr.
VILLAGE OF GURNEE - PROJECT # 8384				Existing Section	Existing Section	Existing Section	Existing Section	Existing Section
2019 MFT STREET MAINTENANCE PROGRAM				1-1/2" surf., 2" Bind, 6" BAM	1-1/2" surf., 2" Bind, 6" BAM	1-1/2" Surf, 12" Bind, 10" Agg.	1-1/2" Surf, 12" Bind, 10" Agg.	1-1/2" Surf, 12" Bind, 10" Agg.
MFT # 19-00000-01-GM						3-1/2" Mill Rehab	3-1/2" Mill Rehab	3-1/2" Mill Rehab
			Maint. Proposed	Mill and OL	Mill and OL	3-1/2" Mill Binder and surf.	3-1/2" Mill Binder and surf.	3-1/2" Mill Binder and surf.
			LENGTH (FT.)	1350	1050	1020	1350	375
			WIDTH (FT.) e-e	28	28	28	28	28
			AREA (S.Y.)	4100	3700	3200	4350	1170
			STREET NAME:	Laurel Ln.	Clavey Ln.	Scarborough Dr.	Scranton Dr.	Garnacha Dr.
ITEM NO	ITEM	UNIT	AMOUNT	(DADA E. - DADA W.)	(NURSERY - KNOWLES)	(ROLLINS - GRAYSTONE)	(SCARBOROUGH - NURSERY)	(SCRANTON - MENDENCINO)
1	COMB. CONC. CURB & GUTTER, TYPE B-6:12	FOOT	1100	0	0	500	500	100
2	COMB. CONC. CURB & GUTTER, TYPE B-6:24	FOOT	0	0	0	0	0	0
3	COMB. CONC. CURB & GUTTER, TYPE M-3:12	FOOT	1200	700	500	0	0	0
4	COMBINATION CURB & GUTTER REMOVAL	FOOT	2300	700	500	500	500	100
5	SIDEWALK REMOVAL	S.F.	3350	1000	450	600	1100	200
6	P.C.C. SIDEWALK	S.F.	3350	1000	450	600	1100	200
7	DETECTABLE WARNING TILES	EA.	20	2	2	2	13	1
8	P.C.C. DRIVEWAY REM.& REPL. 6"	S.Y.	0	0	0	0	0	0
9	HMA DRIVEWAY REMOVAL AND REPLACEMENT	S.Y.	1100	400	300	300	100	0
10	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	1680	480	420	300	380	100
11	HOT-MIX ASPHALT BASE COURSE, 4"	TON	0	0	0	0	0	0
12	HMA BINDER COURSE, IL-19.0, N50	TON	1190	0	0	450	580	160
13	BITUMINOUS MATERIAL (PRIME COAT)	LB.	4700	2000	1500	500	500	200
14	LEVELING BINDER (MACHINE MET.), N50	TON	690	300	250	40	80	20
15	MIXTURE FOR JOINTS, CRACKS AND FLANGEWAYS	TON	4	2	2	0	0	0
16	PAVEMENT PATCHING-CLASS D, 10-INCH	S.Y.	0	0	0	0	0	0
17	PAVEMENT PATCHING-CLASS D, 8-INCH	S.Y.	50	50	0	0	0	0
18	PAVEMENT PATCHING-CLASS D, 6-INCH	S.Y.	1100	700	400	0	0	0
19	PAVEMENT PATCHING-CLASS D, 4-INCH	S.Y.	900	300	400	100	100	0
20	PAVEMENT PATCHING-CLASS D, 2-INCH, SPECIAL	S.Y.	0	0	0	0	0	0
21	PAVEMENT PATCHING-CLASS D, 4-INCH, SPECIAL	S.Y.	0	0	0	0	0	0
22	PAVEMENT PATCHING-CLASS D, 6-INCH, SPECIAL	S.Y.	0	0	0	0	0	0
23	PAVEMENT PATCHING - CLASS B, 8-INCH, SPECIAL	S.Y.	0	0	0	0	0	0
24	PROTECTIVE COAT	S.Y.	0	0	0	0	0	0
25	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	S.Y.	4100	4100	0	0	0	0
26	HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING)	S.Y.	7600	4000	3600	0	0	0
27	HOT-MIX ASPHALT SURFACE REMOVAL, 3-1/2- INCHES	S.Y.	8700	0	0	3200	4350	1150
28	HOT-MIX ASPHALT SURFACE REMOVAL, 6-INCHES	S.Y.	0	0	0	0	0	0
29	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	S.Y.	320	100	100	0	100	20
30	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EA.	0	0	0	0	0	0
31	UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT	C.Y.	80	0	0	20	50	10
32	UNSUITABLE SUBGRADE EXCAVATION, CA-6 REPLACEMENT	C.Y.	150	20	0	20	100	10
33	AGGREGATE BASE REPAIR	TON	380	0	0	140	200	40
34	PREPARATION OF BASE	S.Y.	8720	0	0	3200	4350	1170
35	AGGREGATE SHOULDERS, TY-B	TON	0	0	0	0	0	0
36	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	S.Y.	0	0	0	0	0	0
37	INLETS TO BE ADJUSTED	EA.	35	12	4	6	11	2
38	INLETS TO BE RECONSTRUCTED	EA.	0	0	0	0	0	0
39	MANHOLE TO BE ADJUSTED	EA.	2	1	0	0	1	0
40	MANHOLE TO BE ADJUSTED, SPECIAL	EA.	0	0	0	0	0	0
41	LANDSCAPING	S.Y.	380	100	50	100	100	30
42	GRADING AND SHAPING OF DITCHES	S.Y.	0	0	0	0	0	0
43	INLET, TYPE-A, TY-1 FRAME AND LID	EA.	0	0	0	0	0	0
44	STORM SEWER, 12" - PVC, SDR-26	FOOT	0	0	0	0	0	0
45	PIPE CULVERT REMOVAL, 12"	FOOT	0	0	0	0	0	0
46	PIPE CULVERTS, 12" ALUMINIZED STEEL, TY-2, CP	FOOT	0	0	0	0	0	0
47	ALUMINUM END SECTIONS, 12" DIA.	EA.	0	0	0	0	0	0
48	PIPE UNDER DRAINS, 4"	FOOT	20	10	0	0	10	0
49	AGGREGATE FOR TEMPORARY ACCESS	TON	60	0	0	20	40	0
50	TEMPORARY PAVEMENT MARKING, LETTERS & SYMBOLS	S.F.	0	0	0	0	0	0
51	TEMPORARY PAVEMENT MARKING, 4" LINE	FOOT	0	0	0	0	0	0
52	THERMOPLASTIC PVMT. MARKING, 24" LINE	FOOT	0	0	0	0	0	0
53	THERMOPLASTIC PVMT. MARKING, 12" LINE	FOOT	0	0	0	0	0	0
54	THERMOPLASTIC PVMT. MARKING, 6" LINE	FOOT	0	0	0	0	0	0
55	THERMOPLASTIC PVMT. MARKING, 4" LINE	FOOT	0	0	0	0	0	0
56	THERMOPLASTIC PVMT. MARKING, LETTERS & SYMBOLS	S.F.	0	0	0	0	0	0
57	TRAFFIC CONTROL AND PROTECTION	L.S.	0	0	0	0	0	0

AREA 3 - SUMMARY SHEET			STREET :	Angelo Ave.	Williamsburg Ave.	Cornell Ave.	Calvin Ct.	Majestic Ct.	Harper Ave	Jeffery Ave.	Queen Ann Ln.
VILLAGE OF GURNEE - PROJECT # 8384				Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	Existing Section	Existing Section
2019 MFT STREET MAINTENANCE PROGRAM				S. half Full Depth B&M -N. half 3" HMA Agg.	S. half Full Depth B&M -N. half 3" HMA Agg.	1-1/2" Surf, 1-1/2" Bind, 10" Agg.	1-1/2" Surf, 1-1/2" Bind, 5" B&M	1-1/2" Surf, 1-1/2" Bind, 5" B&M	1-1/2" Surf, 1-1/2" Bind, 10" Agg.	unk	unk - Agg base?
MFT # 19-00000-01-GM				3-1/2" Mill Prep N. Half	3-1/2" Mill Rehab	3-1/2" Mill Rehab			3-1/2" Mill Rehab		
			Maint. Proposed	Mill / Patch / O.L. with 1-1/2" surf S. Half	Mill / Patch / O.L. with 1-1/2" surf S. Half	3-1/2" Mill Binder and surf.	Mill OL	Mill OL	3-1/2" Mill Binder and surf.	6" Mill - Rehab- East 1/2	Mill and OL
			LENGTH (FT.)	875	600	325	550	560	600	620	1950
			WIDTH (FT.) e-e	28	28	28	24	24	28	VARIES	
			AREA (S.Y.)	2725	2350	1200	1600	1620	1950	1500	5500
			STREET NAME:	Angelo Ave.	Williamsburg Ave.	Cornell Ave.	Calvin Ct.	Majestic Ct.	Harper Ave	Jeffery Ave.	Queen Ann Ln.
ITEM NO	ITEM	UNIT	AMOUNT	(LONGMEADOW - EASTWOOD)	(LONGMEADOW - S. CDS)	(O'PLAINE - WILLIAMSBURG)	(PROVIDENCE - N. END)	(PROVIDENCE - N. END)	(ESTES - W. END)	(FIRST - DELANY)	(N-S)
1	COMB. CONC. CURB & GUTTER, TYPE B-6:12	FOOT	700	300	150	50	0	0	50	0	150
2	COMB. CONC. CURB & GUTTER, TYPE B-6:24	FOOT	0	0	0	0	0	0	0	0	0
3	COMB. CONC. CURB & GUTTER, TYPE M-3:12	FOOT	1200	200	200	50	250	200	150	0	150
4	COMBINATION CURB & GUTTER REMOVAL	FOOT	1900	500	350	100	250	200	200	0	300
5	SIDEWALK REMOVAL	S.F.	2000	500	400	100	400	300	300	0	0
6	P.C.C. SIDEWALK	S.F.	2000	500	400	100	400	300	300	0	0
7	DETECTABLE WARNING TILES	EA.	16	2	2	0	4	4	4	0	0
8	P.C.C. DRIVEWAY REM.& REPL. 6"	S.Y.	200	0	0	0	0	0	80	0	120
9	HMA DRIVEWAY REMOVAL AND REPLACEMENT	S.Y.	780	200	150	40	200	50	20	100	20
10	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	1920	250	200	120	190	200	170	140	650
11	HOT-MIX ASPHALT BASE COURSE, 4"	TON	340	0	0	0	0	0	0	340	0
12	HMA BINDER COURSE, IL-19.0, N50	TON	740	150	180	160	0	0	250	0	0
13	BITUMINOUS MATERIAL (PRIME COAT)	LB.	8200	1800	1000	500	700	700	500	600	2500
14	LEVELING BINDER (MACHINE MET.), N50	TON	890	100	80	20	100	100	60	60	370
15	MIXTURE FOR JOINTS, CRACKS AND FLANGEWAYS	TON	0	0	0	0	0	0	0	0	0
16	PAVEMENT PATCHING-CLASS D, 10-INCH	S.Y.	0	0	0	0	0	0	0	0	0
17	PAVEMENT PATCHING-CLASS D, 8-INCH	S.Y.	0	0	0	0	0	0	0	0	0
18	PAVEMENT PATCHING-CLASS D, 6-INCH	S.Y.	2300	500	200	50	350	200	0	0	1000
19	PAVEMENT PATCHING-CLASS D, 4-INCH	S.Y.	1600	100	0	0	300	200	0	0	1000
20	PAVEMENT PATCHING-CLASS D, 2-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
21	PAVEMENT PATCHING-CLASS D, 4-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
22	PAVEMENT PATCHING-CLASS D, 6-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
23	PAVEMENT PATCHING - CLASS B, 8-INCH, SPECIAL	S.Y.	0	0	0	0	0	0	0	0	0
24	PROTECTIVE COAT	S.Y.	0	0	0	0	0	0	0	0	0
25	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	S.Y.	5500	0	0	0	0	0	0	0	5500
26	HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING)	S.Y.	11150	1500	1100	0	1550	1600	0	0	5400
27	HOT-MIX ASPHALT SURFACE REMOVAL, 3-1/2- INCHES	S.Y.	5500	1100	1300	1200	0	0	1900	0	0
28	HOT-MIX ASPHALT SURFACE REMOVAL, 6-INCHES	S.Y.	1500	0	0	0	0	0	0	1500	0
29	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	S.Y.	345	125	0	0	50	20	50	0	100
30	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EA.	0	0	0	0	0	0	0	0	0
31	UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT	C.Y.	345	25	25	20	0	0	150	125	0
32	UNSUITABLE SUBGRADE EXCAVATION, CA-6 REPLACEMENT	C.Y.	270	25	25	20	0	0	100	100	0
33	AGGREGATE BASE REPAIR	TON	480	120	100	60	0	0	120	80	0
34	PREPARATION OF BASE	S.Y.	7480	1630	1250	1200	0	0	1900	1500	0
35	AGGREGATE SHOULDERS, TY-B	TON	20	0	0	0	0	0	0	20	0
36	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	S.Y.	1300	0	0	0	0	0	800	500	0
37	INLETS TO BE ADJUSTED	EA.	24	6	6	0	4	4	1	0	3
38	INLETS TO BE RECONSTRUCTED	EA.	5	1	0	0	2	2	0	0	0
39	MANHOLE TO BE ADJUSTED	EA.	6	0	1	1	0	0	1	3	0
40	MANHOLE TO BE ADJUSTED, SPECIAL	EA.	3	0	0	1	0	0	1	1	0
41	LANDSCAPING	S.Y.	570	100	50	20	50	50	50	200	50
42	GRADING AND SHAPING OF DITCHES	S.Y.	200	0	0	0	0	0	0	200	0
43	INLET, TYPE-A, TY-1 FRAME AND LID	EA.	2	0	0	0	0	1	0	1	0
44	STORM SEWER, 12" - PVC, SDR-26	FOOT	40	0	0	0	0	0	0	40	0
45	PIPE CULVERT REMOVAL, 12"	FOOT	80	0	0	0	0	0	0	80	0
46	PIPE CULVERTS, 12" ALUMINIZED STEEL, TY-2, CP	FOOT	40	0	0	0	0	0	0	40	0
47	ALUMINUM END SECTIONS, 12" DIA.	EA.	2	0	0	0	0	0	0	2	0
48	PIPE UNDER DRAINS, 4"	FOOT	20	0	0	0	10	0	10	0	0
49	AGGREGATE FOR TEMPORARY ACCESS	TON	40	0	0	0	0	0	20	20	0
50	TEMPORARY PAVEMENT MARKING, LETTERS & SYMBOLS	S.F.	0	0	0	0	0	0	0	0	0
51	TEMPORARY PAVEMENT MARKING, 4" LINE	FOOT	0	0	0	0	0	0	0	0	0
52	THERMOPLASTIC PVMT. MARKING, 24" LINE	FOOT	80	0	0	30	0	0	0	0	50
53	THERMOPLASTIC PVMT. MARKING, 12" LINE	FOOT	200	0	0	200	0	0	0	0	0
54	THERMOPLASTIC PVMT. MARKING, 6" LINE	FOOT	100	0	0	20	0	0	0	0	80
55	THERMOPLASTIC PVMT. MARKING, 4" LINE	FOOT	0	0	0	0	0	0	0	0	0
56	THERMOPLASTIC PVMT. MARKING, LETTERS & SYMBOLS	S.F.	70	0	0	20	0	0	0	0	50
57	TRAFFIC CONTROL AND PROTECTION	L.S.	0.3	0.1	0.1	0.1	0	0	0	0	0



AREA 4 - SUMMARY SHEET			STREET :	Tri-State Pkwy	Morrison Dr.	Woodlake Blvd.	Dilley's Rd.
VILLAGE OF GURNEE - PROJECT # 8384				Existing Section	Existing Section	Existing Section	Existing Section
2019 MFT STREET MAINTENANCE PROGRAM				Full Depth BAM	Full Depth BAM	Full Depth BAM	unk
MFT # 19-00000-01-GM				1-1/2" surf, 1-1/2" Blind, 8" BAM			
			Maint. Proposed	Mill / Patch / O.L. with 2" surf			
			LENGTH (FT.)	3100	1260	2000	850
			WIDTH (FT.) e-e	37	28	28	20
			AREA (S.Y.)	16600	4200	6100	18700
			STREET NAME:	Tri-State Pkwy	Morrison Dr.	Woodlake Blvd.	Dilley's Rd.
ITEM NO			UNIT	AMOUNT	(WASHINGTON - LAKESIDE)	(DELANY - E. END)	(RT. 21 - RT. 21)
					(NORTHBRIDGE-CEDAR)		
1	COMB. CONC. CURB & GUTTER, TYPE B-6:12	FOOT	2400	950	700	700	50
2	COMB. CONC. CURB & GUTTER, TYPE B-6:24	FOOT	0	0	0	0	0
3	COMB. CONC. CURB & GUTTER, TYPE M-3:12	FOOT	0	0	0	0	0
4	COMBINATION CURB & GUTTER REMOVAL	FOOT	2400	950	700	700	50
5	SIDEWALK REMOVAL	S.F.	1500	0	0	1500	0
6	P.C.C. SIDEWALK	S.F.	1500	0	0	1500	0
7	DETECTABLE WARNING TILES	EA.	18	0	0	18	0
8	P.C.C. DRIVEWAY REM.& REPL. 6"	S.Y.	0	0	0	0	0
9	HMA DRIVEWAY REMOVAL AND REPLACEMENT	S.Y.	530	200	200	100	30
10	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	3320	1900	500	700	220
11	HOT-MIX ASPHALT BASE COURSE, 4"	TON	0	0	0	0	0
12	HMA BINDER COURSE, IL-19.0, N50	TON	0	0	0	0	0
13	BITUMINOUS MATERIAL (PRIME COAT)	LB.	17000	11000	2000	3000	1000
14	LEVELING BINDER (MACHINE MET.), N50	TON	1730	1000	220	400	110
15	MIXTURE FOR JOINTS, CRACKS AND FLANGEWAYS	TON	20	15	0	5	0
16	PAVEMENT PATCHING-CLASS D, 10-INCH	S.Y.	700	600	100	0	0
17	PAVEMENT PATCHING-CLASS D, 8-INCH	S.Y.	200	100	100	0	0
18	PAVEMENT PATCHING-CLASS D, 6-INCH	S.Y.	1600	100	300	800	400
19	PAVEMENT PATCHING-CLASS D, 4-INCH	S.Y.	2000	400	600	800	200
20	PAVEMENT PATCHING-CLASS D, 2-INCH, SPECIAL	S.Y.	0	0	0	0	0
21	PAVEMENT PATCHING-CLASS D, 4-INCH, SPECIAL	S.Y.	0	0	0	0	0
22	PAVEMENT PATCHING-CLASS D, 6-INCH, SPECIAL	S.Y.	0	0	0	0	0
23	PAVEMENT PATCHING - CLASS B, 8-INCH, SPECIAL	S.Y.	0	0	0	0	0
24	PROTECTIVE COAT	S.Y.	0	0	0	0	0
25	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	S.Y.	1800	0	0	0	1800
26	HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING)	S.Y.	28100	16300	4000	6000	1800
27	HOT-MIX ASPHALT SURFACE REMOVAL, 3-1/2- INCHES	S.Y.	0	0	0	0	0
28	HOT-MIX ASPHALT SURFACE REMOVAL, 6-INCHES	S.Y.	0	0	0	0	0
29	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	S.Y.	635	300	200	100	35
30	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EA.	0	0	0	0	0
31	UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT	C.Y.	120	100	0	0	20
32	UNSUITABLE SUBGRADE EXCAVATION, CA-6 REPLACEMENT	C.Y.	120	100	0	0	20
33	AGGREGATE BASE REPAIR	TON	0	0	0	0	0
34	PREPARATION OF BASE	S.Y.	0	0	0	0	0
35	AGGREGATE SHOULDERS, TY-B	TON	20	0	0	0	20
36	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	S.Y.	200	200	0	0	0
37	INLETS TO BE ADJUSTED	EA.	36	14	6	16	0
38	INLETS TO BE RECONSTRUCTED	EA.	2	1	1	0	0
39	MANHOLE TO BE ADJUSTED	EA.	3	1	0	1	1
40	MANHOLE TO BE ADJUSTED, SPECIAL	EA.	1	0	0	0	1
41	LANDSCAPING	S.Y.	600	200	50	200	150
42	GRADING AND SHAPING OF DITCHES	S.Y.	200	0	0	0	200
43	INLET, TYPE-A, TY-1 FRAME AND LID	EA.	0	0	0	0	0
44	STORM SEWER, 12" - PVC, SDR-26	FOOT	40	0	0	0	40
45	PIPE CULVERT REMOVAL, 12"	FOOT	60	0	0	0	60
46	PIPE CULVERTS, 12" ALUMINIZED STEEL, TY-2, CP	FOOT	20	0	0	0	20
47	ALUMINUM END SECTIONS, 12" DIA.	EA.	2	0	0	0	2
48	PIPE UNDER DRAINS, 4"	FOOT	0	0	0	0	0
49	AGGREGATE FOR TEMPORARY ACCESS	TON	0	0	0	0	0
50	TEMPORARY PAVEMENT MARKING, LETTERS & SYMBOLS	S.F.	150	100	0	50	0
51	TEMPORARY PAVEMENT MARKING, 4" LINE	FOOT	200	100	0	100	0
52	THERMOPLASTIC PVMT. MARKING, 24" LINE	FOOT	310	200	30	80	0
53	THERMOPLASTIC PVMT. MARKING, 12" LINE	FOOT	300	200	0	100	0
54	THERMOPLASTIC PVMT. MARKING, 6" LINE	FOOT	800	300	100	400	0
55	THERMOPLASTIC PVMT. MARKING, 4" LINE	FOOT	2800	2000	200	600	0
56	THERMOPLASTIC PVMT. MARKING, LETTERS & SYMBOLS	S.F.	200	80	40	80	0
57	TRAFFIC CONTROL AND PROTECTION	L.S.	0.1	0.1	0	0	0

# MILL AND OVERLAY WITH REFLECTIVE CRACK CONTROL TREATMENT

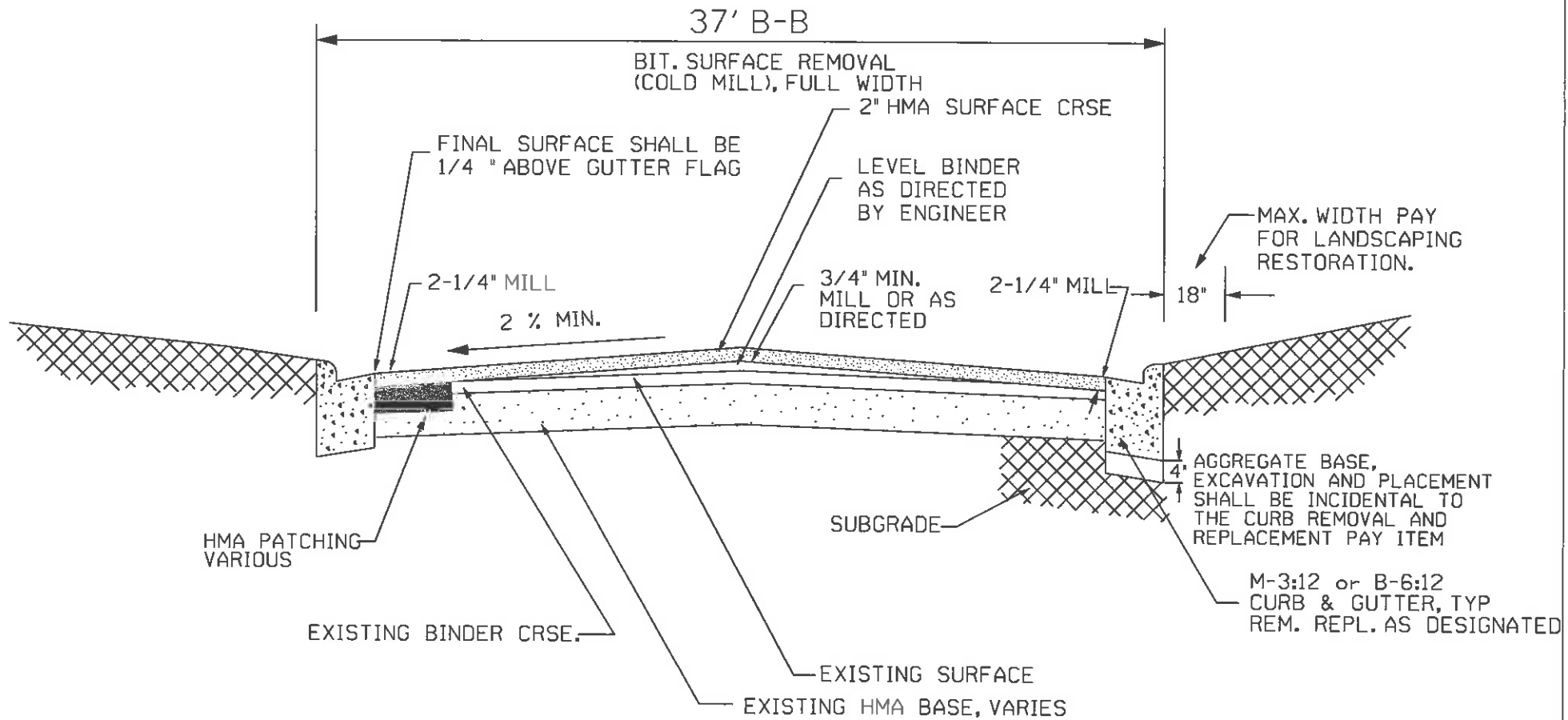


AREA 1

KINGSPORT / MAGICAL / BRENTWOOD  
CLAREWOOD / PINEHURST

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

# MILL AND OVERLAY NO MAT

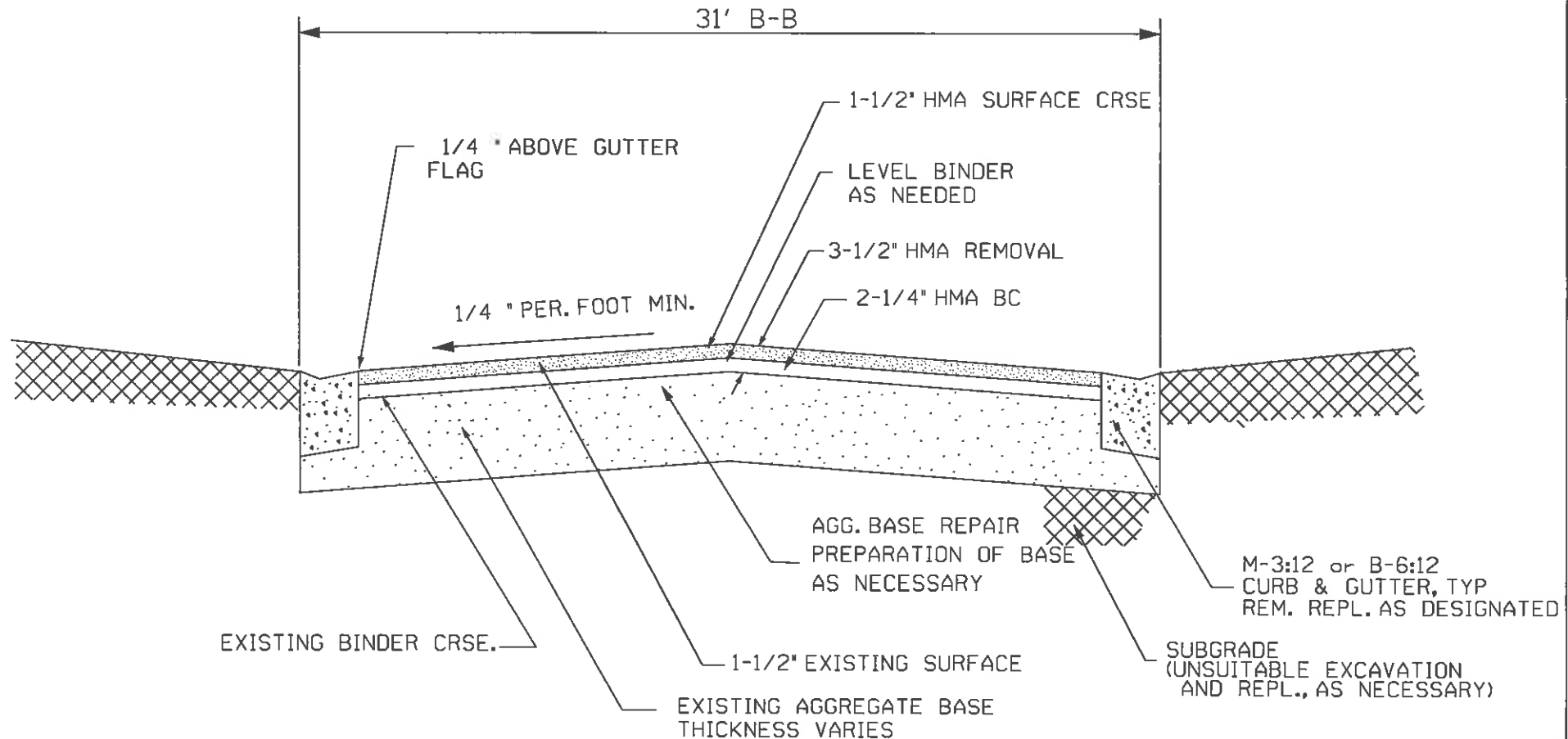


AREA 1  
DADA DRIVE

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

HMA REMOVAL 3-1/2" MILL, PREP., HMA BC  
& HMA SURFACE

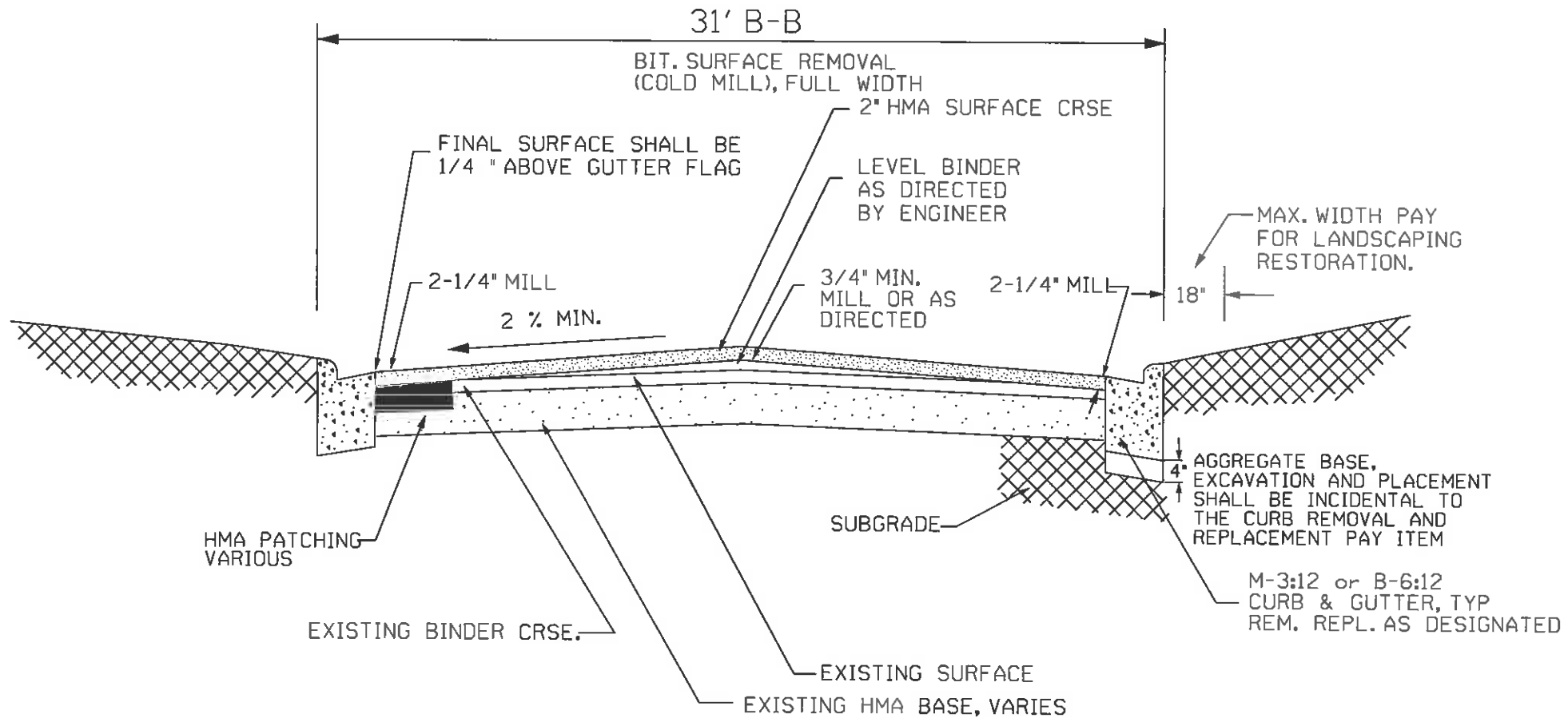
AREA 2



SCRANTON / SCARBOROUGH  
GARNACHA LN.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

# MILL AND OVERLAY WITH REFLECTIVE CRACK CONTROL TREATMENT



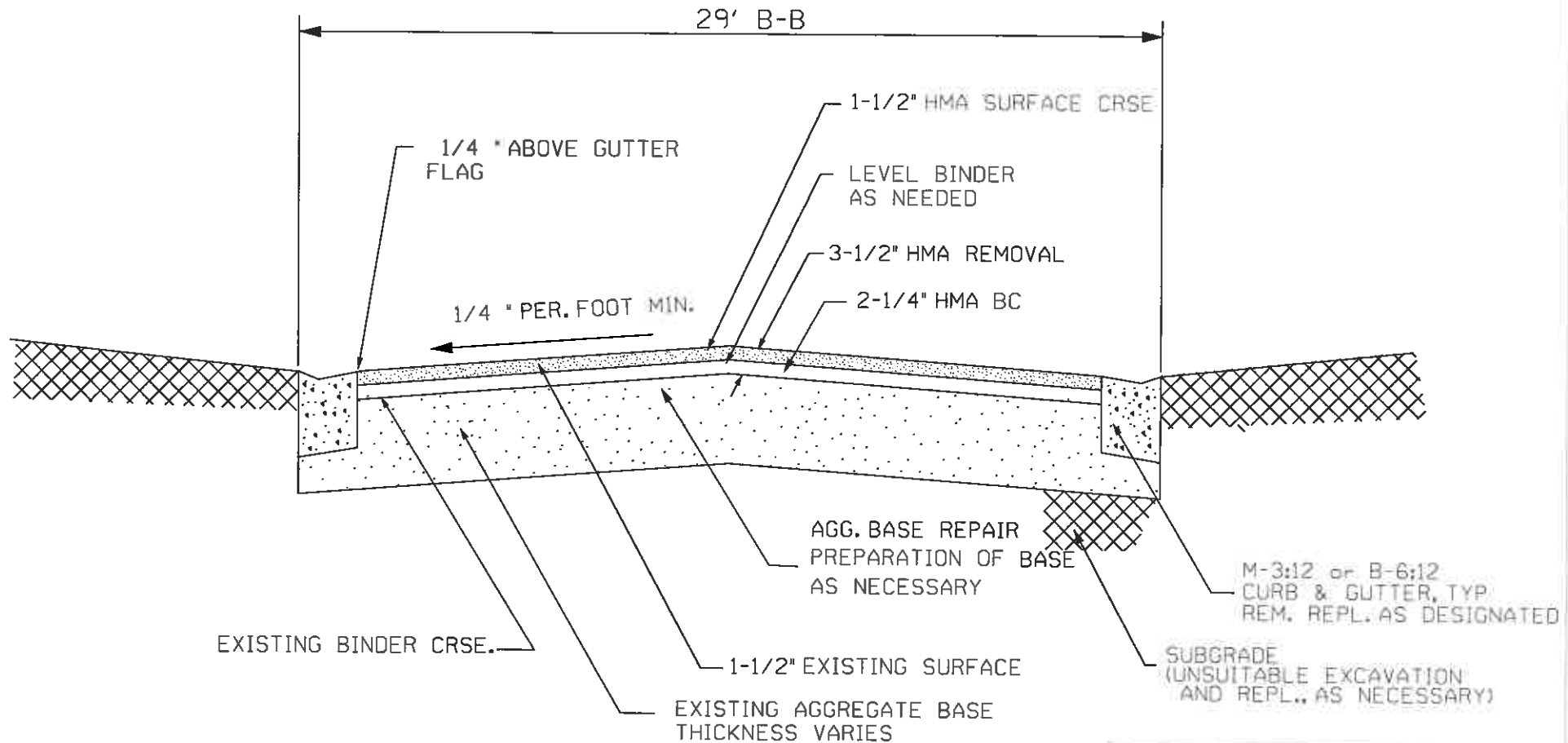
AREA 2

LAUREL LN. / CLAVEY LN.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

HMA REMOVAL 3-1/2" MILL, PREP., HMA BC  
& HMA SURFACE

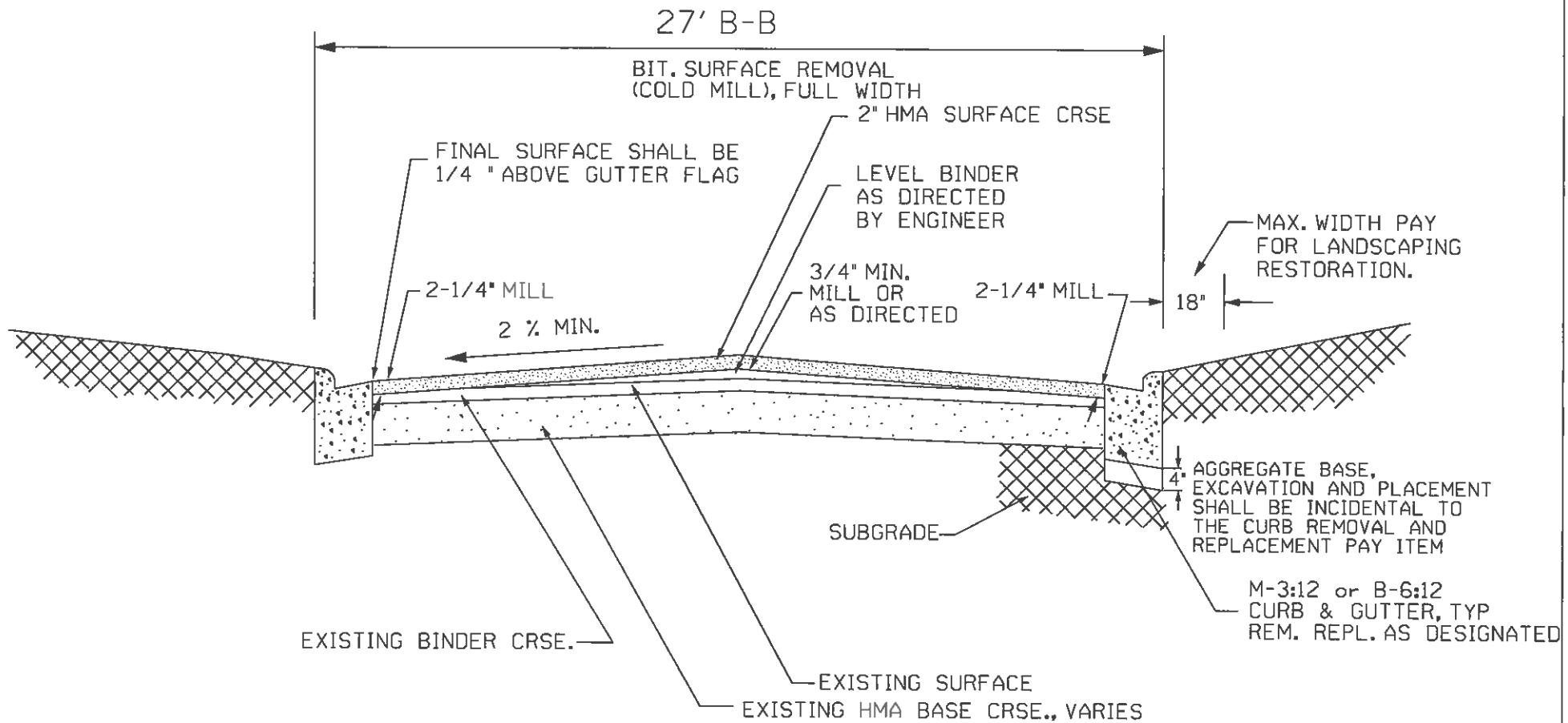
AREA 3



CORNELL AVE. / WILLIAMSBURG  
ANGELO AV. (N. HALF)

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

# MILL AND OVERLAY NO PETROMAT



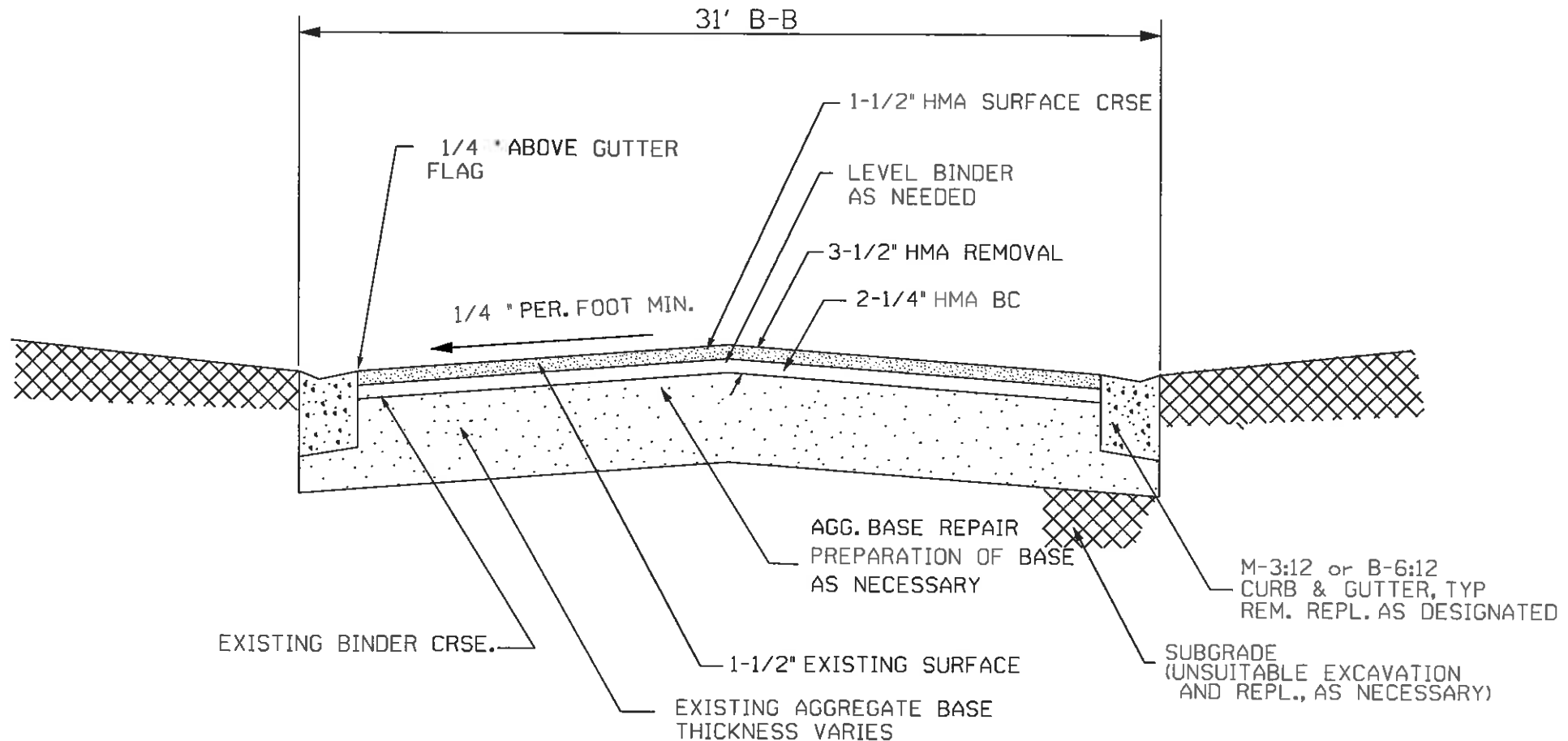
AREA 3

MAJESTIC CT. / CALVIN CT.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

HMA REMOVAL 3-1/2" MILL, PREP., HMA BC  
& HMA SURFACE

AREA 3

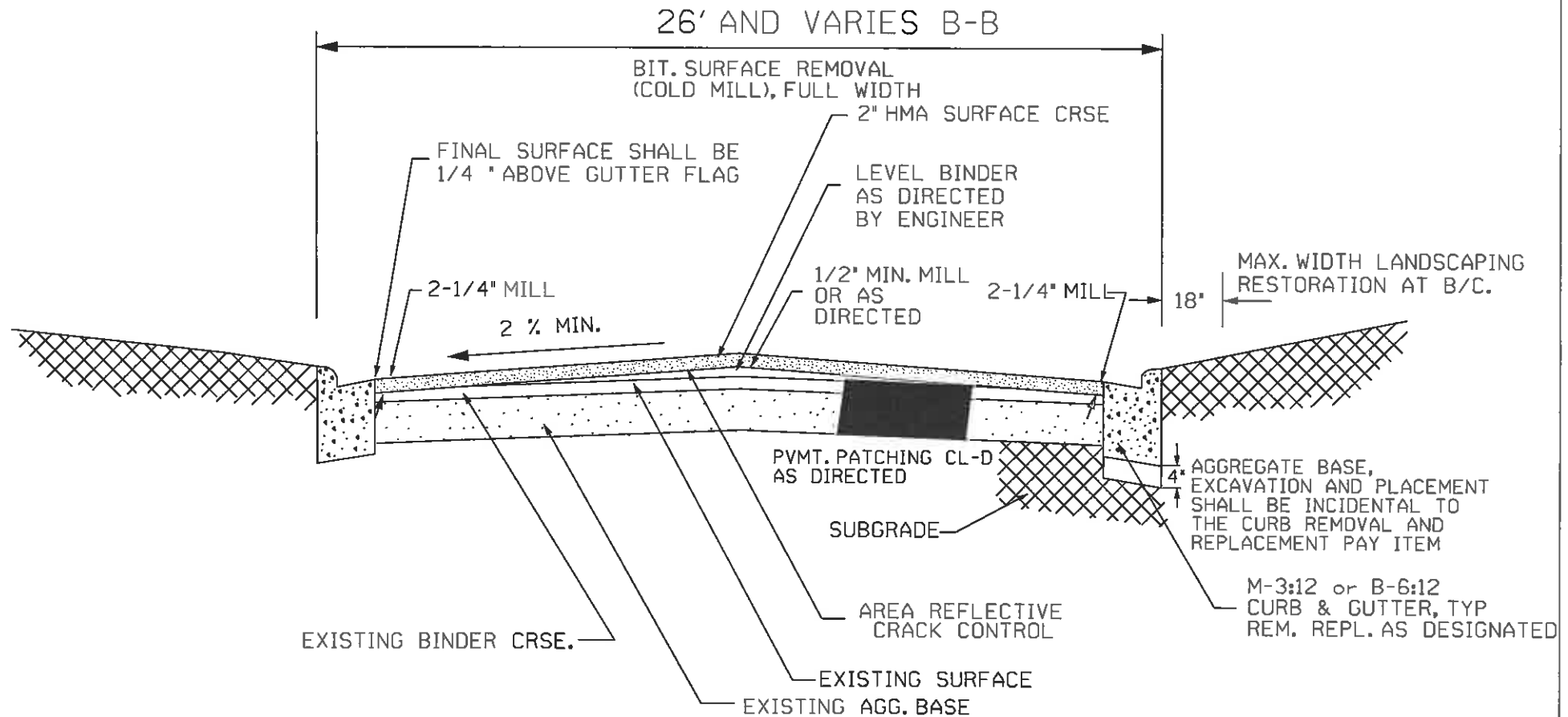


HARPER AV.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384



# MILL AND OVERLAY WITH REFLECTIVE CRACK CONTROL TREATMENT



AREA 3

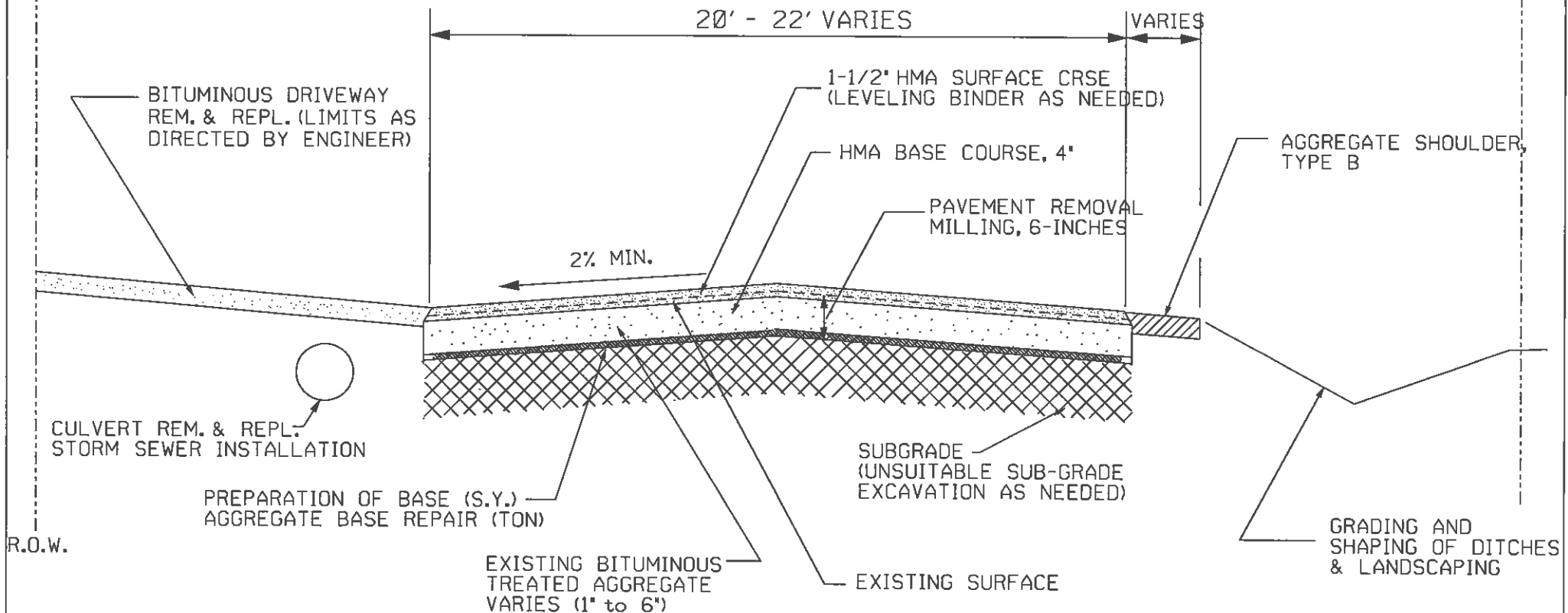
QUEEN ANN LN.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8338

PAVEMENT REMOVAL MILLING, 6-INCH,  
BASE PREPARATION, BITUMINOUS BASE  
COURSE, AND SURFACE COURSE  
RURAL CROSS SECTION

R.O.W.

R.O.W.



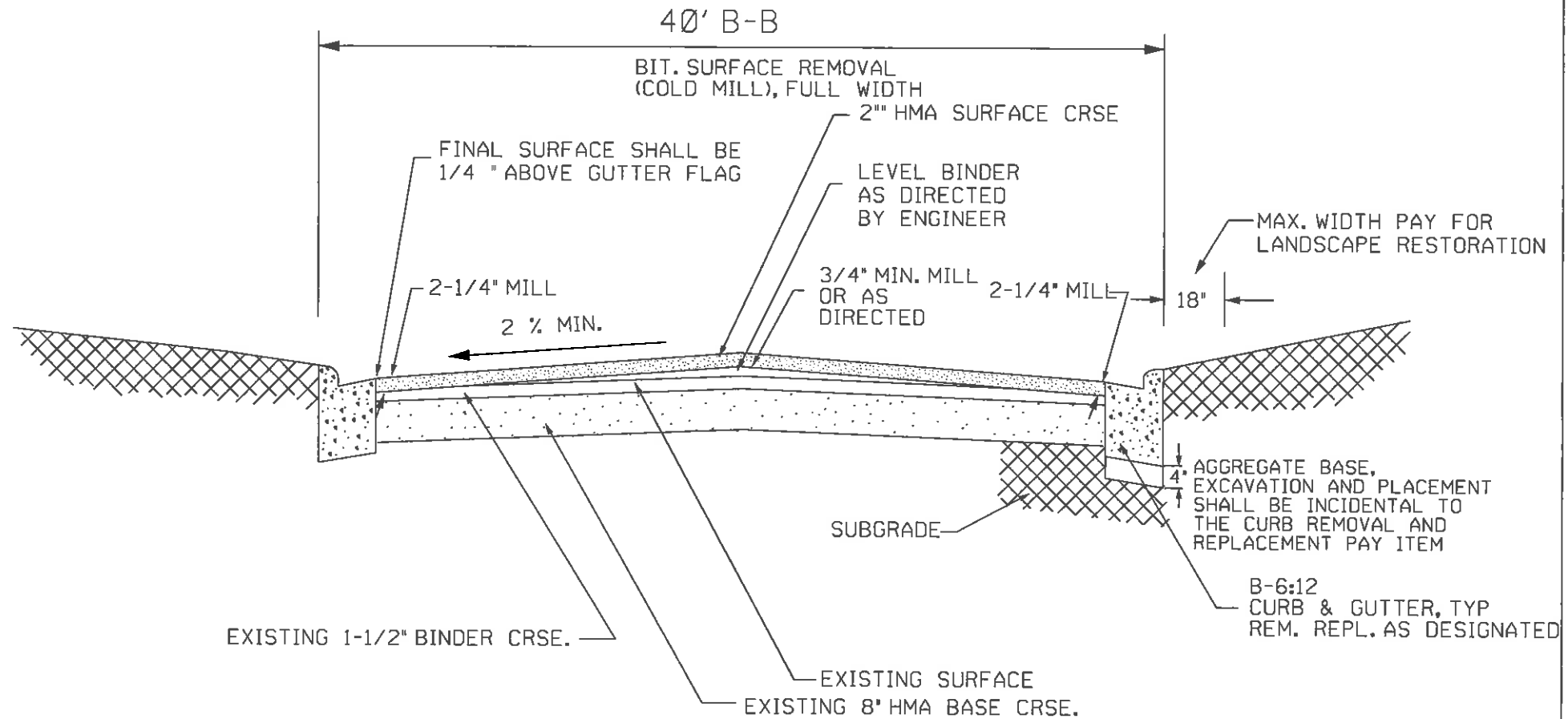
R.O.W.

AREA 3

JEFFERY AV.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

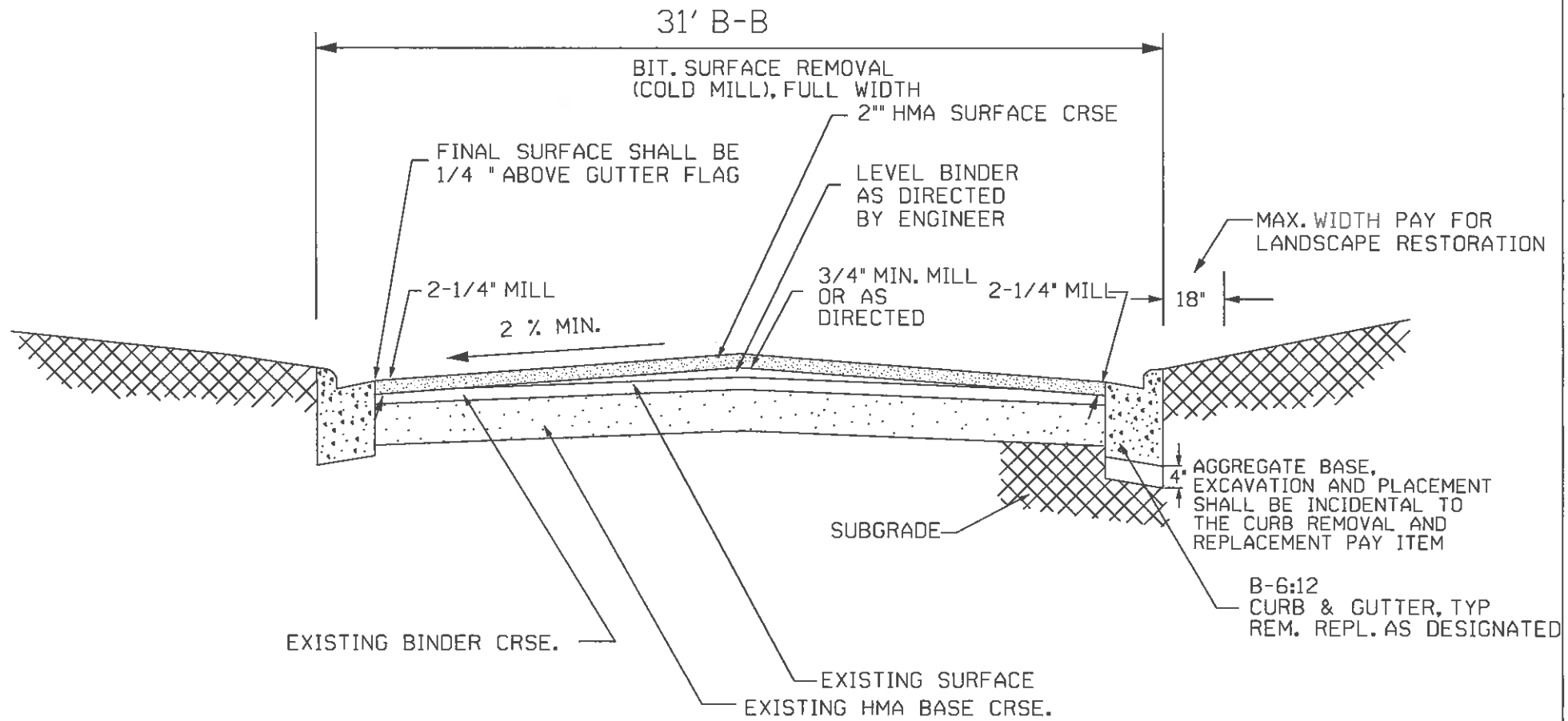
# MILL AND OVERLAY NO PETROMAT



AREA 4  
TRI-STATE PKWY.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

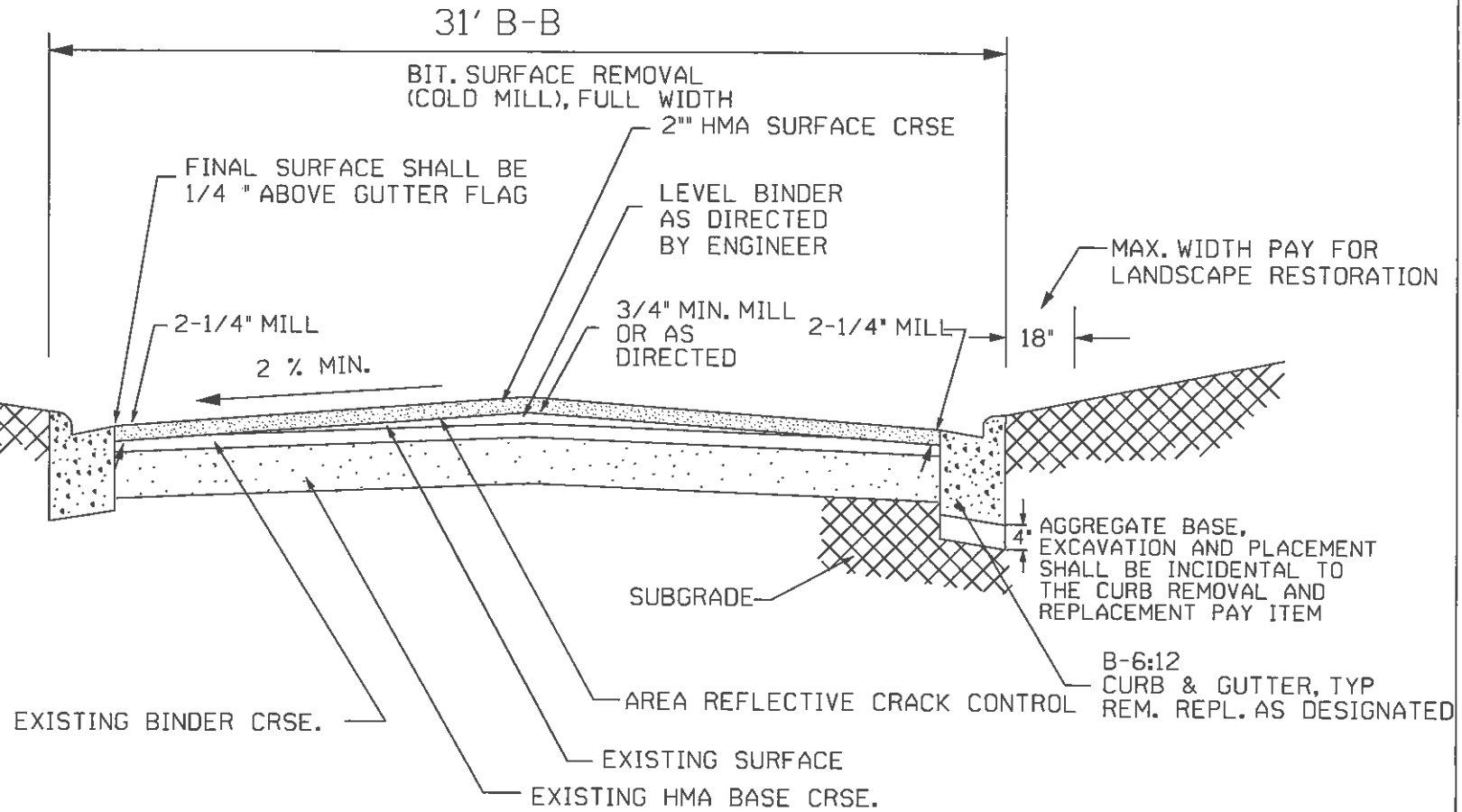
# MILL AND OVERLAY NO PETROMAT



AREA 4  
WOODLAKE BLVD.

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

# MILL AND OVERLAY WITH PETROMAT



AREA 4  
MORRISON DRIVE

VILLAGE OF GURNEE  
SEC. # 19-00000-01-GM  
PROJECT # 8384

## **INSTRUCTIONS TO BIDDERS**

### **SCOPE OF WORK**

The CONTRACTOR shall furnish and provide all labor, materials, tools, equipment, and machinery necessary to perform and complete, in a good and workmanlike manner, the work required for:

## **2019 STREET MAINTENANCE PROGRAM SECTION NO. 19-00000-01-GM**

### **SPECIFICATIONS**

The Specifications for this project are the General Conditions of the Contract, "State of Illinois Standard Specifications for Road and Bridge Construction" Adopted April 1, 2016 (SSRB); "Supplemental Specifications and Recurring Special Provisions" Adopted January 1, 2019; "Standard Specifications for Water and Sewer Main Construction in Illinois" (SSWS); "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), Village of Gurnee "Municipal Code" and Illinois Building Code and Ordinance as amended by the Village of Gurnee by Ordinance, latest editions effective upon the date of the bid opening, which are made part of these documents by reference. In case of conflict between these Specifications, the most restrictive requirement shall be binding.

### **COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS**

The Plans, Specifications, and Special Provisions are intended to describe a complete scope of work and are essential parts of the Contract. A requirement occurring in any of them is binding. In case of discrepancy, measured or calculated dimensions will govern over scaled dimensions; Plans will govern over Specifications; and Special Provisions will govern over both Plans and Specifications. Detailed construction plans will govern over standard plans. The CONTRACTOR shall take no advantage of any apparent error or omission in the Plans and Specifications and the Engineer shall be permitted to make such corrections and interpretations as may be necessary for the fulfillment of the intent of the Plans and Specifications. The decision of the Engineer in the case of any errors or omissions shall be final.

## **EXAMINATION OF SITE AND SPECIFICATIONS**

Bidders shall make a careful examination of the site of the proposed work, Bid Documents, Specifications, and Contract Form before submitting a Proposal. They shall fully inform themselves as to the quality and quantity of materials required and the character of the work, and they shall further investigate the location and make a careful examination of the sources of supply for materials.

The Area Maps indicate Work Areas, and the List of work locations is provided for the convenience of the bidder only. They are intended to provide a generalized scope of the work to be done and in no way shall be deemed to be complete, comprehensive, or limiting the area of the work to be performed.

The Village of Gurnee, as Owner, and its agents assumes no responsibility whatever in respect to the sufficiency or accuracy of this information and there is no guaranty, either expressed or implied, that the conditions or locations indicated are representative of those existing throughout the work or that unanticipated situations may not occur.

The Owner reserves the right to add, delete, or modify as it deems fit, the locations and amounts of work to be done. If their bid is accepted, they will be responsible for all errors in their Proposal resulting from their failure or neglect to comply with these instructions. The Owner will in no case be responsible for any change in anticipated profits resulting from such failure or neglect.

## **DELIVERY OF PROPOSALS**

Proposals shall be delivered in person to the place and by the time specified in the Notice to Bidders. Bids delivered after the time stated will not be accepted nor opened. Submit each Proposal in a sealed envelope including the bidders' company name and plainly marked:

**"2019 STREET MAINTENANCE PROGRAM- SECTION NO. 19-00000-01-GM"**  
**"PROJECT # 8384"**

## **FAIR EMPLOYMENT PRACTICES**

In accordance with "An Act to Prohibit Discrimination and Intimidation on Account of Race or Color in Employment under Contracts for Public Buildings or Public Works", approved July 8, 1933, as amended, no person shall be refused or denied employment in any capacity on the grounds of race or color, nor be discriminated against in any manner by reason thereof in connection with the performance of this Contract, nor shall any unfair employment practice as defined in the "Fair Employment Practices Act", approved July 21, 1961, as amended, be committed by the CONTRACTOR, his subcontractors, suppliers of materials or services to the CONTRACTOR or his subcontractors, or any labor organizations furnishing skilled or unskilled labor to the CONTRACTOR or his subcontractors.

## **MUNICIPAL REFERENCES, EQUIPMENT, SUPERINTENDENT, SUBCONTRACTOR, SUPPLIER RESUMES REQUIRED**

Prior to award, the apparent low bidder shall furnish to the Owner the following information:

1. Three (3) municipal references of completed contract work of a similar nature, including the name of the municipality, the dollar value of the work, and names and telephone numbers of the municipal officials in responsible charge of the completed contracts.
2. A complete List of the Bidder's Labor Force to be employed on this Contract, including their construction specialties.
3. The Name of the Full Time Superintendent assigned to this contract to represent the CONTRACTOR.
4. A List of All Subcontractors proposed to be employed for this contract.
5. A complete List of the Equipment owned or currently leased by the bidder to be used in construction of this improvement.
6. A List of all Material Suppliers with addresses, telephone numbers, and contact names.

Failure to submit any of the above items may result in disqualification of the bid as incomplete.

## **SELECTION OF BIDDER**

The Owner reserves the right to govern selection of a bidder in accordance with the work to be done; equipment and qualified labor and superintendence to be furnished; experience; resources; and the lowest priced responsible and complete bid. The Owner reserves the right to waive any or all technicalities, to reject any or all bids, and to make an award in the best interest of the Village.

## **CONTRACT BOND REQUIRED**

The successful bidder, prior to the execution of the Contract by the Owner, shall furnish to the Owner a surety bond in the sum equal to the full amount of the Bid, in the form of a Contract Bond . All proposals shall be submitted on the basis of furnishing this bond executed by a corporate surety company licensed to do business in the State of Illinois. The costs of executing the Contract, furnishing the Contract Bond and Proof of Insurance, and other documents required, including all Notarial fees and expenses, are to be paid by the Bidder to whom the award is made. The cost of same shall be included in the total amount bid, with no extra compensation paid by the Owner.

## **RETURN OF PROPOSAL GUARANTY**

The proposal guaranty of the successful bidder will be retained until the Owner has accepted the CONTRACTOR 'S executed Contract, Contract Bond, Proof of Insurance, and executed the Contract. The Proposal guaranties of the two next lowest apparent bidders will also be retained until the Contract has been executed by the Owner.



## **GENERAL CONDITIONS OF THE CONTRACT**

### **CONTRACTOR'S INSURANCE**

The CONTRACTOR shall not commence work under this Contract until he has obtained all insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the CONTRACTOR allow any subcontractor to commence work on his Contract until all similar insurance required of the subcontractor has been so obtained and approved.

#### **A. Compensation Insurance:**

The CONTRACTOR shall take out and maintain, during the life of this Contract, Workmen's Compensation Insurance for all his employees employed at the site of the project; and, in case any work is sublet, the CONTRACTOR shall require all subcontractors similarly to provide Workmen's Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this Contract at the site of the project are not protected under the Workmen's Compensation Statute, the CONTRACTOR shall provide and shall cause each subcontractor to provide Workmen's Compensation Insurance for the protection of his employees not otherwise protected.

#### **B. Public Liability & Property Damage Insurance:**

The CONTRACTOR shall take out and maintain and cause to be taken out and maintained by all subcontractors during the life of this Contract such Public Liability and Property Damage Insurance as shall protect him and all subcontractors performing work covered by this Contract from claims for damages for personal injury, including accidental death, as well as from claims for property damages, which may arise from operations under this Contract, whether such operations be by himself or by a subcontractor or by anyone directly or indirectly employed by either of them and the amounts of such insurance shall be as follows:

General Liability/Property Damage/Bodily Injury	\$2 million combined single limit
---	-----------------------------------

Automobile Bodily Injury Liability/Property Damage	\$2 million combined single limit
--	-----------------------------------

Such insurance shall name the Owner and the Engineer as insured along with the CONTRACTOR and shall hold harmless the Owner and the Engineer against all suits and claims arising from or as the result of the actions of the CONTRACTOR or his subcontractors.

Such policies shall not be cancelled, permitted to expire, or to be changed without the written consent of the Owner.

### **PROOF OF INSURANCE**

The CONTRACTOR shall furnish the Owner with sufficient documentary evidence of insurance coverage, which evidence shall consist of either such original insurance policy or a certified statement from the insurer listing the details of the policy.

### **CHANGES TO SCOPE OF WORK**

If the Engineer deems it proper or necessary during the execution of the work to make any alteration which will increase or diminish the quantity of labor or material or the expense of the work, even to the elimination of one or more items, such alteration shall not annul or vitiate the Contract hereby entered into. The elimination of any part of the work shall not increase the unit price for any of the remaining work bid on. The value of the work so added shall be based on the rates and prices named in the Contract as bid, when such rates and prices cover the class of work added, otherwise the value shall be determined by mutual written agreement between the Owner and the CONTRACTOR before any such work shall be commenced.

### **EXTRA WORK**

No claim whatsoever will be allowed the CONTRACTOR for changes, extra work, or material not contemplated or necessary for the completion of the work described, or for a greater amount of money than is hereby stipulated to be paid, unless the change in or addition to the work requiring additional outlay by the CONTRACTOR is first ordered in writing by the Engineer and the price herein stipulated to the CONTRACTOR.

### **QUALITY CONTROL OF WORK**

The Engineer shall have power to inspect all work for compliance with the Specifications, and the CONTRACTOR shall perform all of the work herein specified to the Engineer's entire satisfaction, approval, and acceptance.

The CONTRACTOR is responsible for furnishing all labor, materials, and equipment to construct and complete the work in compliance with the Plans, Specifications, and Special Provisions. All material to be incorporated in the work; all labor to be performed; and all equipment, tools, and methods to be used shall be subject to the approval of the Engineer. It is the CONTRACTOR'S responsibility to complete the work and deliver a final product, which meets all the requirements of the Specifications.

The Engineer shall decide all questions relative to measurements, the materials used, the character of the work performed, and as to whether the rate of progress is such as to comply with these Specifications.

If any authorized agent of the Engineer shall discover and notify to the CONTRACTOR of any neglect or disregard of the Specifications, such defects shall at once be remedied and further defective work be at once discontinued; but the right of final acceptance or condemnation of the work will not be waived by reason thereof, nor by any act of the Owner, his officers, or agents.

## **INSPECTION**

The Engineer shall at all times have access for inspection to all branches of the work, on the site of the work, at the place of manufacture, or where materials are stored or to be furnished from, and the CONTRACTOR shall furnish from time to time such samples of each separate ingredient forming the materials to be used in the improvement as may be required by the Engineer.

If at any time during the progress of the work, any material is rejected or if any of the work is wholly or in part improperly constructed, then the CONTRACTOR, at his own expense, shall immediately remove all rejected material and shall reconstruct all work improperly done. In case the CONTRACTOR shall neglect or refuse, after twenty-four (24) hours written notice, to remove or replace said rejected work or material, the work shall be removed by the Owner and the Owner's cost of labor, material, and supervision thereof deducted from any money due the CONTRACTOR.

## **MATERIAL INSPECTION**

All materials incorporated in this contract are to be inspected according to the Project Procedures Guidelines (PPG).

The Local Agency shall be responsible for the cost of the quality assurance field inspection. Job site quality assurance inspection shall be done by the Local Agency. All bituminous and concrete material shall be inspected at the plant in accordance with the QC/QA requirements and per the approved QC plan. A minimum of forty-eight (48) hours in advance notification shall be required prior to placement of any of these materials, notice shall be given to the Local Agency's material inspector for the project and the Resident Engineer. The Contractor shall allow the inspector access to his plant area to observe the operations and take material samples as required.

Contractors' attention is directed to Section 406 and 1030 of the Standard Specifications for Hot Mix Asphalt. For Concrete Mixtures attention is directed to Recurring Special Provision Check Sheet #25, "Quality Control/Quality Assurance of Concrete Mixtures".

## **CONTRACTOR'S EMPLOYEES**

The CONTRACTOR shall employ skilled foremen and laborers and shall, if directed by the Engineer, discharge from the site of the work any incompetent, abusive, or disorderly employees. None but person's expert in their respective branches of work shall be employed by the CONTRACTOR.

## **OBSTRUCTION OF STREETS AND RIGHTS OF WAY**

The CONTRACTOR shall arrange to keep public ways open for traffic at their own expense. Convenient access to driveways, houses, and buildings along the improvement must be maintained by the CONTRACTOR. The CONTRACTOR shall remove all surplus materials and debris from the work area on a daily basis as the work progresses so that there is a minimum amount of disruption to public property as possible.

## **SALVAGED MATERIAL**

All material of whatever kind encountered on the site is the property of the Owner. When approved for removal from the site of the work, said material shall become the property of the CONTRACTOR and shall be disposed of, in a timely fashion, as specified.

## **PERMITS**

Before beginning work and without expense to the Owner, the CONTRACTOR shall obtain all necessary permits for all work to be done under this Contract. The CONTRACTOR shall make all necessary arrangements with public and private utilities where changes in their installations are contemplated, or where crossings over or under right-of-ways or easements are indicated, all without expense to the Owner. Costs incurred for permits shall be incidental to total amount bid for this improvement.

## **ORDINANCES**

The CONTRACTOR shall observe all ordinances in relation to obstructing streets or driveways, maintaining signs and signals, keeping open passageways and protecting same where exposed, and to observe all laws and ordinances controlling or limiting those engaged in public work, which ordinances and laws are made a part of these Specifications. The CONTRACTOR shall provide and maintain such sanitary accommodations for the use of his employees as may be necessary to comply with the State and Local Board of Health requirements.

## **DAMAGE**

All loss or damage arising out of the nature of the work to be done, or from any delay or unforeseen or unusual obstructions, or from difficulties which may be encountered in the prosecution of the work or arising from the action of the elements, shall be sustained at the CONTRACTOR'S expense.

The CONTRACTOR shall be held responsible for any and all damage to any and all water, gas or drain pipes, conduits, trees, sidewalks, pavements and all structures, etc., and to interruption of service to same.

The CONTRACTOR shall, without extra charge, erect, maintain, and remove strong and suitable barriers which, during the night time, will prevent any accident or harm to life, limb, or property in consequence of such excavation, use or occupancy of any streets, avenues, highways, or public grounds.

The CONTRACTOR shall protect, restore, and make good, as may be necessary, all buildings, foundations, and fences injured in the progress of the work, at the CONTRACTOR'S expense. The CONTRACTOR shall protect all private and corporate property, such as gas mains, telephone lines, telephone or telegraph poles or conduits, etc. interfering with the work, notifying the several owners of the work to be done, and arranging for the future disposition of their property. The CONTRACTOR agrees to hold the Owner and the Engineer harmless from any such claims or demands of any kind, arising from their performing the work on this Contract.

## **CLAIMS**

The CONTRACTOR agrees to save and hold harmless the Owner and the Engineer from all claims, demands, suits, judgement decrees, including costs, expenses and attorney fees on account of, or arising out of, the use of the streets or sidewalks, or resulting from the excavations, openings, obstructions, or defects that may be made or left in the streets or sidewalks by the CONTRACTOR or their several agents, or any other person engaged in the performance of this Contract.

The CONTRACTOR shall save the Owner and the Engineer harmless from all claims, demands, suits, judgement decrees, including costs, expenses and attorney fees on account of, or arising out of, any infringement of any patent rights or royalties claimed by any one on account of machinery, instrument tools, materials, principals, or processes used by them or about said work.

## **FORFEITURE**

The work herein specified shall be prosecuted with such forces as the Engineer may deem adequate for its completion within the time specified for completion. If the rate at which the work is performed is, in the judgement of the Engineer, not such as to insure its progress and completion in the time and manner herein specified, or if, at any time, the CONTRACTOR refuses or neglects to prosecute the work with forces sufficient for its completion within the specified time, or if in any event, the CONTRACTOR fails to proceed with the work in accordance with the requirements and conditions of the Specifications, the Owner shall have full right and authority after giving three (3) days written notice to the CONTRACTOR of its intention to do so, to take the work out of the hands of the CONTRACTOR and/or to re-let the same to other contractors. In so doing, the Owner may use or authorize the use of such materials and supplies as may be the property of the CONTRACTOR, or on the ground, without rental or other charge for the use thereof, except that all such materials so used in completing the work shall be credited to said CONTRACTOR at their fair reasonable market price, as of the date same were delivered on the work, but in no case will the CONTRACTOR be credited with more than the cost of said materials delivered to the CONTRACTOR. The cost of fully completing all the work and all expense of every kind incurred by the Owner in connection herewith shall be charged to the CONTRACTOR and shall be deducted and paid by the Owner out of such moneys as may be due, or may at any time thereafter become due, or may at any time thereafter become due to said CONTRACTOR under this Contract, or any part thereof, so far as the same shall suffice therefore, and any deficiency shall be paid to the Owner by the CONTRACTOR forthwith, and the bondsmen will be held liable for any such deficiency.

Should it become necessary for the Owner to declare the work forfeited, such forfeiture shall in no case relieve the CONTRACTOR or his bondsmen of any of the conditions of the Contract. In case the CONTRACTOR shall abandon or in any manner fail to complete the work, the Owner shall have the full right and authority to pay to any person, firm, or entity who may have been employed by the CONTRACTOR upon the work, out of any fund due or unpaid the CONTRACTOR at the time the

(continued on next page)

Owner shall declare said CONTRACTOR in default, any and all sums of money which may be found to be due and owing to said CONTRACTOR under this Contract and upon giving five (5) days written notice by mail to said CONTRACTOR of the intention so to do.

The Owner shall have the full right and authority to ascertain the amount or amounts so due and owed by the CONTRACTOR to such person, firm, or entity and in such manner and upon such proof as it may deem sufficient, and the amount or amounts so found by it to be due and owing to such person, firm, or entity, shall be conclusive as against said CONTRACTOR, and may thereafter make payment to the said person, firm or entity.

### **SUBLETTING OF CONTRACT**

No part of the work herein specified shall be assigned, subcontracted, or sublet without the written consent of the Owner.

The CONTRACTOR may be permitted to sublet a portion thereof, but shall perform with the CONTRACTOR'S own organization, work amounting to not less than fifty percent (50%) of the total contract cost, and with materials purchased or produced by the CONTRACTOR. Second tier subcontracting will not be allowed.

All requests to subcontract any work shall include a certified copy of the executed subcontract agreement signed by both the General CONTRACTOR and the Subcontractor. All subcontract agreements shall list and itemize what work is being subcontracted and the amounts and/or basis of payment for such work. All subcontract agreements shall contain the required Federal and State Equal Employment Opportunity provisions and Labor Compliance provisions, including contract minimum wage requirements.

All work permitted to be subcontracted is conditional upon the timeliness and satisfactory performance of the Subcontractor and coordination of the CONTRACTOR. The Engineer may order the CONTRACTOR to remove a Subcontractor who is not performing satisfactory work or who is not performing work in a timely manner. Upon the Engineer's written direction, the CONTRACTOR shall comply at once and shall not employ the Subcontractor for any further work under this contract.

### **SUSPENSION OF WORK**

Should the CONTRACTOR, with the approval of the Engineer, stop work or should the weather conditions in the opinion of the Engineer be such that the work could not be properly and safely be performed, then the Engineer may suspend the work until such time as weather conditions shall permit proper construction. In case of stoppage of work, the CONTRACTOR shall, at his own expense, store and be responsible for material, street restoration, and protection of the work and be responsible for all accidents as though the work was in progress. Should the work be delayed or suspended with the approval of the Engineer, the time of delay or suspension may be added to the time set for completion of the work.

## **WAIVERS OF LIEN REQUIRED**

It is expressly understood that the Engineer reserves the right to direct that no payment be made to the CONTRACTOR should he have reason to believe that said CONTRACTOR has failed for any reason to make just payment to any employee, subcontractor, or material supplier used or employed by the CONTRACTOR in the prosecution of the work, until the Engineer is satisfied that full and proper payment has been made. The CONTRACTOR shall secure and file with the Owner progress and final waivers of lien for all materials incorporated into and labor and equipment employed on the work before payment requests are processed.

## **PARTIAL AND FINAL ACCEPTANCE OF THE WORK**

Work on this Contract is not subject to partial inspection and acceptance. The entire work shall be made in a neat and workmanlike manner and all requirements shall be complied with in detail. The mere fact that some particular part or portion of the work may have been previously inspected, cleaned, and set in order will not excuse the CONTRACTOR from again cleaning any and all portions so that the entire system of work shall be in proper condition and subject to final inspection by the Engineer and complying with the use intended at the time of acceptance by the Owner. The date of final acceptance of work on this Contract is the date that the CONTRACTOR is issued final payment by the Owner.

## **PAYMENT FOR COMPLETED WORK**

The work to be constructed may vary in actual units on quantities from those given in the Bid Documents, but no additions or deductions in the unit prices bid by the CONTRACTOR will be made because of this fact. The total bid and contract unit prices shall include all cost of the work to be constructed.

Any payments made to the CONTRACTOR during the progress of the work shall in no way lessen the total and final responsibility of the CONTRACTOR, nor in any manner whatever waive any of the terms, conditions, covenants, or requirements of the Contract, nor be considered a ratification of any act on the part of the Engineer, agents, or representatives of the Owner which in any manner may contravene any of the requirements or provisions of the Contract. During the course of the improvement, if the rate of progress is satisfactory to the Engineer, and it appears that all claims for labor and materials are satisfied, progress payment may be requested by the CONTRACTOR to the Engineer for payment by the Owner.

The CONTRACTOR and Engineer shall certify in writing to the amounts of work completed, on forms prepared by the Engineer, prior to presentation to the Owner for payment. The Owner will retain ten percent (10%) of the progress payments for work completed and approved to date and the final contract amount until all work is given final approval by the Engineer and all other requirements of the Contract have been completed to the satisfaction of the Owner.

### **J.U.L.I.E.**

The Contractor is to call J.U.L.I.E. (1-800-892-0123) forty-eight (48) hours prior to excavating for field locations of existing utilities. A minimum of forty-eight (48) hours notice shall be given to the Director of Engineering prior to starting work.

### **PROTECTION OF EXISTING UTILITIES AND FACILITIES**

#### **EXISTING UTILITIES:**

- A. The location of utilities shown on the Drawings are approximate only. OWNER and ENGINEER disclaim responsibility for the accuracy or completeness of any such information or data.
- B. The CONTRACTOR shall have full responsibility for locating all underground facilities in work areas, whether shown or not shown on the Drawings, for coordination of the WORK with the owners of such underground facilities during construction, for the safety and protection thereof, and repairing any damage thereto resulting from the WORK; the cost of which shall be included in the Contract Unit Price of the improvements specified.
- C. Rules, regulations, and codes governing the respective utilities which may be encountered shall be observed in executing all WORK.

#### **EXISTING FACILITIES:**

The CONTRACTOR shall protect from damage all parts of curbs, paving, catch basins, manholes, drains, pavement, utilities, and all other improvements liable to injury by his operations and shall, at his own expense, make good all such damages to the satisfaction of the Owner.

The CONTRACTOR shall clean and maintain all roadways adjoining the project site free from all construction debris, dirt and/or mud at all times. The CONTRACTOR is also responsible for the immediate removal of dirt and/or mud and or debris from adjacent highways caused by construction traffic entering or leaving the project site. In dry weather, the CONTRACTOR shall spray dusty areas daily with water, or as directed by the Resident Engineer, in order to control dust. This work shall be considered incidental to the improvement.

It shall be the CONTRACTOR'S responsibility to arrange for the relocation or bracing of existing power poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these power poles, temporary relocation, etc., will be the responsibility of the CONTRACTOR. This work shall be considered incidental to the cost of the improvement.

**All mailboxes removed or damaged during construction shall be replaced.** The CONTRACTOR is to install temporary mailbox mounts as required to maintain mail delivery to all residents during construction. The aforementioned work shall be considered incidental to the cost of the improvement.

(continued on next page)



The CONTRACTOR shall restore all parkways and driveways that are disturbed by the construction. All parkways and driveways shall be restored to the same or better condition as existed prior to construction.

All trees shall be protected from damage by all contractors. The CONTRACTOR shall be responsible for any negligence or willful damage to these trees and/or their root system. The CONTRACTOR shall not remove any trees unless requested to do so in writing by the Director of Engineering, or if they are marked on the plans for removal.

### **TRAFFIC CONTROL**

If deemed necessary by the Director of Engineering, the construction area within Village right-of-way may be closed to traffic for periods not exceeding the normal work day. The CONTRACTOR shall open the road to local traffic at the end of each day of operation. Proper signage and advance warnings shall be erected during any roadway closure and shall be included in the Traffic Control and Protection Lump Sum item.

It will be the CONTRACTOR'S responsibility to notify residents when access to their driveways will be temporarily closed. Every effort shall be made to accommodate access to these properties. Driveways shall not be closed overnight.

### **NOTICE OF STARTING WORK**

The CONTRACTOR shall notify the Village Engineer forth-eight hours before beginning any work on this Contract, or of his intentions so to do, and in case of temporary suspension of the work, shall give a similar notice for resuming same.

### **SEQUENCE OF WORK**

The CONTRACTOR shall proceed with the work on this contract by an Area-by-Area sequence (see Area location maps). The CONTRACTOR or Sub-Contractors will not be allowed to proceed to another Area until the previous Area has been substantially completed. Substantial completion includes all the work necessary for the improvement, non inclusive of the Hot-Mix Asphalt surface course. The CONTRACTOR shall submit, for approval by the Engineer, a Progress Schedule, which complies with the requirements of this specification. The Progress Schedule shall include an Estimate of Time and/or Performance Rate for each controlling pay item.

### **WARRANTY PERIOD**

The CONTRACTOR shall warrant all work performed for a period of one (1) year from the date of final acceptance in writing by the Director of Engineering. In case of acceptance of a part of the work for use or occupancy prior to final acceptance of the entire work, the guarantee for the part so accepted shall be for a period of one (1) year from the date of such partial acceptance, in writing, by the Village Engineer.



Local Public Agency

Gurnee

County

Lake

Section Number

19-00000-01-GM

The following Special Provision supplement the "Standard Specifications for Road and Bridge Construction", adopted

April 1, 2016

, 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 Specification and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of the above named section, and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

1. Hot-Mix Asphalt Surface Removal - (Cold Milling)
2. Pavement Removal - Milling
3. Pavement Patching - Class D
4. Pavement Patching - Class D, Special
5. Combination Curb and Gutter
6. HMA Driveway Removal and Replacement
7. Unsuitable Sub-Grade Excavation, CA-6, Replacement
8. Unsuitable Sub-Grade Excavation, CA-1, Replacement
9. HMA Base Course
10. Pipe Culvert, 12-Inch
11. Manhole To Be Adjusted, Special
12. Landscaping
13. Grading and Shaping of Ditches
14. Traffic Control and Protection
15. Concrete Washout Facility
16. Pavement Patching Class B, 8-Inch, Special

**1. HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING)**

This work shall consist of removal of the existing HMA surface in accordance with Section 440 of the Standard Specifications for Road and Bridge Construction and as herein modified. The milling depth of the existing HMA surface shall be a minimum of 2 ¼" at the gutter flag and taper to a minimum of ½" at the roadway center line or as directed by the Engineer.

After the removal of the HMA surface, the pavement shall be swept by a mechanical vacuum broom to prevent recompaction of the cuttings onto the pavement. All loose material shall be removed from the roadway as part of the surface removal pay item.

The contractor shall provide the proper traffic control for the moving operation as indicated in the standards. "ROUGH GROOVED SURFACE" (W8-I107) signs shall be erected when the road has been cold milled and open to traffic. The signs shall remain in place until the milled surface condition no longer exists. These signs shall be erected proceeding the start of the milled pavement and shall have an amber flashing light attached and weighted down with a minimum of two sand bags.

This work will be paid for at the Contract Unit Price per SQUARE YARD for HOT-MIX ASPHALT SURFACE REMOVAL-(COLD MILLING), which includes all labor, equipment, disposal, cleaning and traffic control as herein specified.

**2. PAVEMENT REMOVAL MILLING**

This work shall consist of the removal of existing HMA pavement, base and sub-base by machine milling methods in accordance with Section 440 and as herein modified.

Equipment used for this works shall be according to Article/Section 1101.16 as specified.

PAVEMENT REMOVAL MILLING shall be measured on the surface of the area approved for removal and the quantity computed for payment in square yard for the thickness increment specified.

**3. PAVEMENT PATCHING – CLASS D**

This work shall consist of pavement removal and off-site disposal and patching in accordance with Section 442 and as herein modified.

After the milling operations, the Engineer shall field mark the limits of the patch and the CONTRACTOR shall neatly saw cut full depth all edges of the patch. The CONTRACTOR shall remove the existing pavement to the depth specified. Bituminous Material (prime coat), shall be applied to perimeter vertical edges and existing bituminous area of the patch. The top lift shall be level and to grade of the adjacent surface. Pavement patching shall not be designated by type.

This work shall be paid for at the Contract Unit Price per square yard for PAVEMENT PATCHING – CLASS D, of the thickness specified.

If unsuitable material is encountered and its removal and replacement is approved by the Engineer, such removal and replacement shall be paid for at the Contract Unit Price per cubic yard for UNSUITABLE SUBGRADE EXCAVATION.

**4. PAVEMENT PATCHING – CLASS D, SPECIAL**

This work shall consist of pavement removal and off-site disposal and HMA patching in accordance with Section 442 of the Standard Specifications and as herein specified. Pavement patching shall not be designated by type.

The Engineer shall field mark the limits of the patch and the CONTRACTOR shall neatly saw cut all edges of the patch. The CONTRACTOR shall remove the existing pavement to the depth specified. The bottom lift of the patch shall be constructed with an approved HMA mixture in compliance with the requirements of Section 442.02. The top lift shall consist of a 1-1/2"-inch compacted HMA surface course, N50, and shall be level to grade of the adjacent surface.

(continued on next page)

Pavement removal shall be performed with a self-propelled planing machine or self-propelled milling machine. The CONTRACTOR must demonstrate that a neat straight line and vertical face hole can be accomplished with the removal technique; the method shall be approved by the Engineer. Patch sizes meeting the specifications for Type IV (25 sq yd or more) in accordance with article 442.01 shall have the final HMA surface placed using a self-propelled paving machine in accordance with Article 1102.03 of the Standard Specifications.

Any saw cutting, prime coat necessary shall be included in the cost of the Pavement Patching Item.

This work shall be paid for at the Contract Unit Price per square yard for PAVEMENT PATCHING – CLASS D, SPECIAL of the thickness specified.

5. **COMBINATION CURB AND GUTTER REMOVAL,**  
**COMBINATION CURB AND GUTTER**

This work consists of the removal and off-site disposal of existing combination concrete curb and gutter in compliance with SSRB Section 440 and construction of combination concrete curb and gutter of various types to match the adjacent types as shown on the plans, plan details, and in compliance with SSRB Section 606 and as herein modified.

Base material shall comply with SSRB Sections 311 and 1004 and shall be gradation CA-6, crushed stone only. Existing curb and gutter shall be full-depth saw cut at each end of the section to be removed, where field marked by the Resident Engineer. After the curb and gutter is removed, the CONTRACTOR shall excavate the sub-grade to a minimum of four inches (4") below the bottom of the proposed curb. After the sub-grade is excavated and compacted, base material shall be constructed to the bottom of the proposed curb replacement, a minimum of four inches (4") thick, and shall be mechanically compacted to the satisfaction of the Resident Engineer

Two each ¾" inch epoxy coated dowel bars installed and grouted properly into the ends of all existing curb prior to curb and gutter replacement. Preformed expansion joint filler, ¾ inches in thickness with dowels shall be constructed at all points of curve, 5' from drainage structures, and at a minimum of 100-foot intervals. Tooled or saw-cut contraction joints shall be constructed at twelve foot (12') intervals between preformed joints or where determined in the field by the Resident Engineer.

(Continued on next page)

The CONTRACTOR shall backfill the areas in back of curb in accordance with (SSRB) Section 606.13. The CONTRACTOR shall front fill the areas in front of the replaced curb with Controlled Low-Strength Material in accordance with Section 593. The voids to be filled shall be clean and dry. The backfill and front fill shall be incidental to the curb and gutter pay item.

The CONTRACTOR is completely responsible for protecting the work from vandalism. All vandalized concrete work shall be removed and replaced at the CONTRACTOR'S expense.

This work shall be paid for at the Contract Unit Price per foot for COMB. CURB AND GUTTER REMOVAL, COMB. CONC. CURB AND GUTTER of the type of curb constructed. The Contract Unit Price for curb and gutter construction includes the excavation and construction of all granular base, dowel bars, protective coat, back filling and front filling, curing, and protection.

If unsuitable material is encountered and its removal and replacement is approved by the Engineer, such removal and replacement shall be paid for at the Contract Unit Price per cubic yard for UNSUITABLE SUBGRADE EXCAVATION.

**6. HMA DRIVEWAY REMOVAL AND REPLACEMENT**

This work consists of removing existing HMA driveway pavements as directed by the Engineer and construction of a three-inch (3") thick Hot-Mix Asphalt surface driveway pavement section in compliance with SSRB Sections 440 and 441 and as herein specified. Hot-Mix Asphalt surface replacement shall be with HMA Surface Course, N50, or mixture approved by the Engineer, placed in two lifts. The Engineer shall field-mark the limits of the driveway pavement removal. All driveway pavements shall be saw-cut full depth prior to removal. The existing driveway pavement shall be removed to the depth of three inches (3") below the proposed finished driveway replacement surface and disposed of off-site at the CONTRACTOR'S expense. The subgrade shall be prepared and mechanically compacted for the approval and the satisfaction of the Resident Engineer. The surface course shall then be constructed to a minimum depth of three inches (3").

Hot-Mix-Asphalt Driveway Pavement Replacement will be measured in-place and computed for payment in square yards.

This work shall be paid for at the Contract Unit Price per square yard for HMA DRIVEWAY REMOVAL AND REPLACEMENT.

**7. UNSUITABLE SUBGRADE EXCAVATION, CA-6, REPLACEMENT**

The work for this pay item shall include all labor, material, and equipment necessary to excavate and replace unsuitable sub-grade materials. This item will be used where unsuitable soil materials (as classified by the Engineer) are encountered in the street excavation, street patching process, curb replacement or driveway replacement items. It will be performed only when ordered by the Engineer. Replacement material shall be Sub-base Granular Material, Type-B, gradation CA-6, **crushed stone** only that comply with the requirements of (SSRB) Section 1004. Crushed concrete shall not be allowed.

This item measured for the excavation quantities per Cubic Yard as defined in (SSRB) Section 202.

Work under this item shall be performed in compliance with the Illinois Environmental Protection Agency (IEPA) guidelines in effect at the time of construction. The Owner will provide copies of the analysis reports for the soil samples take along with the appropriate Illinois EPA LPC-662 or 663 Certification. The Contractor will be required to make all arrangements for the coordination and submission of the testing reports and certification documents with their chosen Clean Construction and Demolition Debris (CCDD) or other suitable disposal facility.

This work shall be paid for at the Contract Unit Price per CUBIC YARD for UNSUITABLE SUBGRADE EXCAVATION, CA-6 REPLACEMENT and includes; excavation, disposal, replacement material, compaction and all labor necessary.

**8. UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT**

The work for this pay item shall include all labor, material, and equipment necessary to excavate and replace unsuitable sub-grade materials. This item will be used where unsuitable soil materials (as classified by the Engineer) are encountered in the street excavation, street patching process, curb replacement or driveway replacement items. It will be performed only when ordered by the Engineer. Replacement material shall be Granular Material, crushed stone or crushed concrete only, meeting the requirements of Article 1004.05 and meeting the gradation of the following table:

Sieve Size	Percent Passing
8"	100
6"	97 +/-2
4"	90 +/-10
2"	45 +/- 25
#4	20 +/-20
#200	5 +/-5

**Crushed stone or crushed concrete** shall comply with the requirements of (SSRB) Section 1004 and 1005. Contractor shall submit a sieve analysis of the material proposed for this use and final approval of material incorporated shall be determined by the Village Engineer.

This item measured for the excavation quantities per Cubic Yard as defined in (SSRB) Section 202.

Work under this item shall be performed in compliance with the Illinois Environmental Protection Agency (IEPA) guidelines in effect at the time of construction. The Owner will provide copies of the analysis reports for the soil samples take along with the appropriate Illinois EPA LPC-662 or 663 Certification. The Contractor will be required to make all arrangements for the coordination and submission of the testing reports and certification documents with their chosen Clean Construction and Demolition Debris (CCDD) or other suitable disposal facility.

This work shall be paid for at the Contract Unit Price per CUBIC YARD for UNSUITABLE SUBGRADE EXCAVATION, CA-1 REPLACEMENT and includes; excavation, disposal, replacement material, compaction and all labor necessary.



9. **HMA BASE COURSE**

This work shall consist of constructing Hot-Mix Asphalt Base Course in accordance with Section 355, and as herein modified.

This work shall be paid for at the contract unit price per ton for HOT-MIX-ASPHALT BASE COURSE, of the thickness specified

10. **PIPE CULVERT, 12-Inch Dia.**

The work of this pay item shall include all labor, material, and equipment necessary to install pipe culverts in accordance with (SSRB) Section 542 and as herein specified.

Pipe culverts shall be 12" (twelve inch), Aluminized Steel Type 2 Corrugated Pipe conforming to Section 1006. The pipe culverts shall be installed to the line and grade established by the Engineer. Culvert pipe shall have a minimum of 6" bedding aggregate material approved by the Engineer. Trench backfill necessary for the pipe covering shall be considered incidental to the pipe culvert pay item. Payment for this work shall be at the Contract Unit Price per FOOT of the size and type specified for PIPE CULVERTS, 12-Inch Dia.

11. **MANHOLE TO BE ADJUSTED, SPECIAL**

In areas of Pavement Removal Milling, 6", prior to the milling operations the CONTRACTOR shall remove a minimum of 12" of the pavement from around the structure, remove the existing frame and lid, and cover the structure opening with a 36" diameter steel plate. This area shall be backfilled with crushed stone and a minimum of 1-½" bituminous material approved by the Engineer. After the construction of the Bituminous Base Course the CONTRACTOR shall saw-cut the pavement remove the steel plate and install the frame and lid and adjust the frame to its final surface elevation. After the adjustment is made, the CONTRACTOR shall fill the space between the adjusted frame and the existing pavement with Class PP Concrete and barricade it for a minimum of seventy-two (72) hours or until sufficient curing has occurred to permit traffic upon it.

Concrete for adjustments in paved areas shall be Class PP Concrete, Special Patching Mixture as specified in (SSRB) Article 1020.05 (g).

The CONTRACTOR shall be responsible to clean any debris from the manhole or sewer lines, which are a direct result of the Manhole Adjustment. The method of cleaning shall be by hydro-vac or by a method approved by the Engineer. Any debris which enters the sewer line will be the responsibility of the contractor and shall be removed as directed by the Engineer. The cleaning of the Manholes will not be paid for separately but shall be considered incidental to the Manhole Adjustment.

This work shall be paid for at the Contract Unit Price per EACH for MANHOLE TO BE ADJUSTED, SPECIAL.

**12. LANDSCAPING**

This item consists of placing a minimum of four (4") inches of pulverized topsoil, seeding, and lying of excelsior blanket feathered to the existing terrain. This item is intended to blend any changes in pavement, shoulders, curbs or ditches to existing contours in accordance to (SSRB) Articles 211, 250, 251, or at the direction of the Engineer.

This item shall be paid for at the Contract Unit Price per SQUARE YARD for LANDSCAPING.

**13. GRADING AND SHAPING OF DITCHES**

This work consists of furnishing labor, material and equipment for the grading and shaping of ditches to maintain or establish proper drainage along the roadway ditches adjacent to the roadway improvements. This work shall be done at the direction of the Engineer and shall be in accordance with (SSRB) Section 202. Excavation and disposal and or fill material for this pay item shall be considered incidental to the GRADING AND SHAPING OF DITCHES. Final grading shall be performed to a grade to accept 4" of topsoil placement.

This work shall be paid for at the contract Unit Price per SQUARE YARD for GRADING AND SHAPING OF DITCHES.

**14. TRAFFIC CONTROL AND PROTECTION**

This item shall be in accordance with the applicable sections of the "Standard Specifications for the Road and Bridge Construction", "Supplemental Specifications and Recurring Special Provisions", the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Illinois Supplement" thereto, these special Provisions, and any details and "Highway Standards", contained on the plans or specifications.

Special attention is called to (SSRB) Sections 107.09 and 107.14 and the following IDOT Highway Standards, contained herein.

The CONTRACTOR shall contact the Engineer at least forty-eight (48) hours in advance of beginning any work on the project.

This work includes the placement of "Fresh Oil" signs W21-2 (30" X 30"), and "Road Work Ahead" signs W20-1 at all cross streets at the project limits and any required road name plates. "Fresh Oil" signs shall be in place twenty-four (24) hours prior to placement of any bituminous prime material upon the roadway.

If the CONTRACTOR requests, block road closure **may** be allowed by the Resident Engineer during normal working hours provided that it is accomplished in the manner approved by the Resident Engineer, including all required signing, detours and flaggers. **NO OVERNIGHT CLOSURES OF ANY STREET WILL BE ALLOWED**, unless specifically provided for in the plans and Contract Documents.

At the Pre-Construction Meeting, the CONTRACTOR shall furnish the name and a twenty-four (24) hour phone number of the individual in his direct employ who is responsible for the installation and maintenance of the traffic control for the project.

In accordance with Art. 108.01, if a Subcontractor is to provide this aspect of the work, consent of the Resident Engineer is required. This shall not relieve the CONTRACTOR of the foregoing requirement for an individual in his direct employ to superintend the implementation and maintenance of the traffic control.

The CONTRACTOR shall furnish, install, maintain, relocate, and remove all traffic cones, signs, barricades, warning lights, and other devices which are to be used for the purpose of controlling traffic. The CONTRACTOR shall furnish certified flag persons when required for safe operations. The CONTRACTOR is responsible to insure that all barricades, warning signs, lights, and other devices installed for traffic control are in place and operating twenty-four (24) hours each calendar day this Contract is in effect. Measurement shall be pro rated. The Resident Engineer shall evaluate the amount of current contract pay items completed and approved for payment and divide them by the total current approved contract amount. This percentage of the contract LUMP SUM price for TRAFFIC CONTROL AND PROTECTION shall be eligible for payment.

This work shall be paid for at the Contract LUMP SUM Price for TRAFFIC CONTROL AND PROTECTION as herein specified.

## **15. CONCRETE WASHOUT FACILITY**

The contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials according to Article 107.23 of the "Standard Specifications"

To prevent pollution by residual concrete and/or the by product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained on any project which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained and removed per the approval of the Engineer. Concrete washout facilities shall be required on all projects regardless of the need for NPDES permitting. On projects requiring NPDES permitting, concrete washout facilities shall also be addressed in the SWPPP.

The concrete washout facility shall be constructed on the job site according to LC4202. The Contractor may elect to use a pre-fabricated portable concrete washout structure. The Contractor shall submit a plan for the concrete washout facility, to the Engineer for approval, a minimum of 10 calendar days before the first concrete pour. The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area.

(Continued on next page)

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans. Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to operator of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capacity. Once the 75% capacity is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of by the Contractor. **The Contractor shall remove the concrete washout facility within 48 hours when it is no longer needed on the job site.**

This work will not be paid for separately, but shall be incidental to the concrete work items included in the contract.

**16. PAVEMENT PATCHING CLASS B, 8-INCH, SPECIAL**

This work consists of the removal and off-site disposal of existing PCC Pavement sections in compliance with SSRB Section 442.

The PCC pavement shall be 8-Inches in thickness per detail. This work shall include Dowel Bars and Transfer baskets as specified. The sub-grade shall be prepared per Art. 423.04. If unsuitable material is encountered removal and replacement shall be paid for at the Contract Unit Price per cubic yard for UNSUITABLE SUBGRADE EXCAVATION. Upon completion of the sub-grade preparation all loads shall be kept off of the prepared sub-grade including ready mix trucks.

This work shall be paid for at the Contract Unit Price per square yard for PAVEMENT PATCHING CLASS B, 8-INCH, SPECIAL.



The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

<u>Check Sheet #</u>		<u>Page No.</u>
1	<input type="checkbox"/> Additional State Requirements for Federal-Aid Construction Contracts	75
2	<input type="checkbox"/> Subletting of Contracts (Federal-Aid Contracts)	78
3	<input type="checkbox"/> EEO	79
4	<input type="checkbox"/> Specific EEO Responsibilities Non Federal-Aid Contracts	89
5	<input type="checkbox"/> Required Provisions - State Contracts	94
6	<input type="checkbox"/> Asbestos Bearing Pad Removal	100
7	<input type="checkbox"/> Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	101
8	<input type="checkbox"/> Temporary Stream Crossings and In-Stream Work Pads	102
9	<input type="checkbox"/> Construction Layout Stakes Except for Bridges	103
10	<input type="checkbox"/> Construction Layout Stakes	106
11	<input type="checkbox"/> Use of Geotextile Fabric for Railroad Crossing	109
12	<input type="checkbox"/> Subsealing of Concrete Pavements	111
13	<input type="checkbox"/> Hot-Mix Asphalt Surface Correction	115
14	<input type="checkbox"/> Pavement and Shoulder Resurfacing	117
15	<input type="checkbox"/> Patching with Hot-Mix Asphalt Overlay Removal	118
16	<input type="checkbox"/> Polymer Concrete	120
17	<input type="checkbox"/> PVC Pipeliner	122
18	<input type="checkbox"/> Bicycle Racks	123
19	<input type="checkbox"/> Temporary Portable Bridge Traffic Signals	125
20	<input type="checkbox"/> Work Zone Public Information Signs	127
21	<input type="checkbox"/> Nighttime Inspection of Roadway Lighting	128
22	<input type="checkbox"/> English Substitution of Metric Bolts	129
23	<input type="checkbox"/> Calcium Chloride Accelerator for Portland Cement Concrete	130
24	<input type="checkbox"/> Quality Control of Concrete Mixtures at the Plant	131
25	<input checked="" type="checkbox"/> Quality Control/Quality Assurance of Concrete Mixtures	139
26	<input type="checkbox"/> Digital Terrain Modeling for Earthwork Calculations	155
27	<input type="checkbox"/> Reserved	157
28	<input type="checkbox"/> Preventive Maintenance - Bituminous Surface Treatment	158
29	<input type="checkbox"/> Reserved	164
30	<input type="checkbox"/> Reserved	165
31	<input type="checkbox"/> Reserved	166
32	<input type="checkbox"/> Temporary Raised Pavement Markers	167
33	<input type="checkbox"/> Restoring Bridge Approach Pavements Using High-Density Foam	168
34	<input type="checkbox"/> Portland Cement Concrete Inlay or Overlay	171
35	<input type="checkbox"/> Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	175

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

<u>Check Sheet #</u>		<u>Page No.</u>
LRS 1	<b>Reserved</b>	179
LRS 2	<input type="checkbox"/> Furnished Excavation	180
LRS 3	<input checked="" type="checkbox"/> Work Zone Traffic Control Surveillance	181
LRS 4	<input checked="" type="checkbox"/> Flaggers in Work Zones	182
LRS 5	<input checked="" type="checkbox"/> Contract Claims	183
LRS 6	<input checked="" type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals	184
LRS 7	<input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals	190
LRS 8	<b>Reserved</b>	196
LRS 9	<input type="checkbox"/> Bituminous Surface Treatments	197
LRS 10	<b>Reserved</b>	198
LRS 11	<input checked="" type="checkbox"/> Employment Practices	199
LRS 12	<input checked="" type="checkbox"/> Wages of Employees on Public Works	201
LRS 13	<input checked="" type="checkbox"/> Selection of Labor	203
LRS 14	<input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks	204
LRS 15	<input checked="" type="checkbox"/> Partial Payments	207
LRS 16	<input type="checkbox"/> Protests on Local Lettings	208
LRS 17	<input checked="" type="checkbox"/> Substance Abuse Prevention Program	209
LRS 18	<input type="checkbox"/> Multigrade Cold Mix Asphalt	210

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."

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

SPECIAL PROVISION  
FOR  
PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL)

Effective May 12, 1964  
Revised January 2, 2007

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

All work shall be according to Section 420 and applicable provisions of Section 606 except as follows:

420.01 Description. Revise Article 420.01 to read:

"Description. This work shall consist of a pavement with an integral concrete curb composed of portland cement concrete with or without reinforcement, constructed on a prepared subgrade, or subbase, with or without forms."

420.03 Equipment. The following equipment will not be required:

- (c) Mechanical Concrete Spreader
- (e) Mechanical Longitudinal Float

Add the following paragraph to this Article:

"The integral concrete curb shall be formed with a moving finishing template or "mule" of a design approved by the Engineer. The template may be either a part of or separate from the pavement finishing machine and shall be designed so as to produce uniform curb of the exact dimensions required by the plans. It shall incorporate a means of consolidation of the concrete in the curb either by hand spreading or other method approved by the Engineer. If separate from the pavement finishing machine, the template shall be so designed as to cause a minimum displacement of the plastic pavement concrete.

The subgrade template shall be of a design approved by the Engineer and shall be capable of accurately indicating high and low spots in the subgrade with relation to the side forms."

420.04 Preparation of Subgrade or Subbase. Revise the third paragraph of Article 301.06 to read:

"The subgrade shall be brought to true shape by means of a subgrade planer, subgrade machine, and/or other methods approved by the Engineer according to the following:"

Add the following subparagraph (c) to Article 301.07:

"(c) Other methods when approved by the Engineer."



**420.06 Forms and Form Setting.** Add the following paragraph to Article 420.06:

"Forms for the integral concrete curb with a base width less than the height may be used provided they are stable while the finishing equipment is operated upon them and do not settle under the weight of the finishing machine. If additional form height is added to accommodate the curb template after the passage of the pavement finishing equipment, the form arrangement shall meet with the approval of the Engineer."

**420.07 Placing.** Add the following paragraphs to Article 420.07:

"An integral concrete curb shall be cast monolithically with the pavement. It shall be formed either as a part of, or immediately following, the placing of the concrete pavement or by other methods approved by the Department."

"When the curb is formed in a separate operation from the pavement, it shall be placed immediately following the longitudinal floating operation. Curb concrete shall be thoroughly rodded or spaded into the surface of the pavement concrete while the latter is still in a completely plastic state."

**420.05 Joints.** Add the following to subparagraph (a) and (b) of Article 420.05:

"Longitudinal construction joints conforming to the details shown on the plans will be permitted at any longitudinal joint location."

Add the following paragraph to subparagraph (c)(2) of this Article:

"The requirement for load transfer assemblies will be as shown on the plans."

Revise subparagraph (e) of this Article to read:

"Transverse Construction Joints. Transverse construction joints shall be constructed in accordance with the details shown on the plans. Transverse construction joints that occur at regular construction joints shall be keyed but not tied, and the thickness of the pavement for a distance of 600 mm (2 feet) in each direction from the joint shall be not less than 200 mm (8 inch). Joints that the contractor makes within the limits of a contraction panel shall be tied with deformed tiebars."

Add the following subparagraph (f) to this Article:

"Integral Concrete Curb Contraction Joint. Contraction joints shall be constructed in the curb in prolongation of the joints in the pavement and shall be constructed in accordance with the plans or as directed by the Engineer."

**420.09 Strike Off, Consolidation, and Finishing, Longitudinal Floating, Straitedging, Edging, and Final Finish.**

Revise the first sentence of subparagraph (b)(3) of this Article to read:

"This method may be used when approved by the Engineer."

420.19 Method of Measurement. Revise the first paragraph of subparagraph (b) of Article 420.19 to read:

"Portland cement concrete pavement (special) will be measured in place and the area computed in square meters (square yards) completed and accepted. The width for measurement shall be the width from the outsides of the completed pavement, including integral curb when required, as shown on the plans or as directed by the Engineer."

420.20 Basis of Payment. Revise the first paragraph of Article 420.23 to read:

"This work will be paid for at the contract unit prices per square meter (square yard) for PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL) WITH INTEGRAL CURB, HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), WITH INTEGRAL CURB of the thickness specified; and at the contract unit price per square meter (square yard) for PAVEMENT FABRIC."

Article 1103.13 Finishing Machine. Revise Article 1103.13 to read:

"The finishing machine shall be of a type approved by the Engineer, shall be self-propelled and shall be capable of striking off, consolidating and finishing concrete of the consistency required by the specifications to the proper crown and grade."

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

Effective: January 1, 2010

Revised: August 1, 2018

**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 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 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 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.

When a longitudinal joint sealant (LJS) is applied, longitudinal joint density testing will not be required on the joint(s) sealed.”

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-4.75	Ndesign = 50	93.0 – 97.4% <sup>1/</sup>	91.0%
IL-9.5	Ndesign = 90	92.0 – 96.0%	90.0%
IL-9.5, IL-9.5L	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0	Ndesign = 90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L	Ndesign < 90	93.0 <sup>2/</sup> – 97.4%	90.0%

SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%"
-----	-------------------	--------------	--------

80246

## LIGHTS ON BARRICADES (BDE)

Effective: January 1, 2018

Revise Article 701.16 of the Standard Specifications to read:

**"701.16 Lights.** Lights shall be used on devices as required in the plans, the traffic control plan, and the following table.

Circumstance	Lights Required
Daylight operations	None
First two warning signs on each approach to the work involving a nighttime lane closure and "ROUGH GROOVED SURFACE" (W8-I107) signs	Flashing mono-directional lights
Devices delineating isolated obstacles, excavations, or hazards at night (Does not apply to patching)	Flashing bi-directional lights
Devices delineating obstacles, excavations, or hazards exceeding 100 ft (30 m) in length at night (Does not apply to widening)	Steady burn bi-directional lights
Channelizing devices for nighttime lane closures on two-lane roads	None
Channelizing devices for nighttime lane closures on multi-lane roads	None
Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic	None
Channelizing devices for nighttime along lane shifts on multilane roads	Steady burn mono-directional lights
Channelizing devices for night time along lane shifts on two lane roads	Steady burn bi-directional lights
Devices in nighttime lane closure tapers on Standards 701316 and 701321	Steady burn bi-directional lights
Devices in nighttime lane closure tapers	Steady burn mono-directional lights
Devices delineating a widening trench	None
Devices delineating patches at night on roadways with an ADT less than 25,000	None
Devices delineating patches at night on roadways with an ADT of 25,000 or more	None

Batteries for the lights shall be replaced on a group basis at such times as may be specified by the Engineer."

Delete the fourth sentence of the first paragraph of Article 701.17(c)(2) of the Standard Specifications.

Revise the first paragraph of Article 603.07 of the Standard Specifications to read:

**"603.07 Protection Under Traffic.** After the casting has been adjusted and Class SI concrete has been placed, the work shall be protected by a barricade for at least 72 hours."

80392

## HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013

Revised: January 1, 2018

### 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 <sup>1/</sup> CA 16, CA 13 <sup>3/</sup>
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 <sup>1/</sup> CA 16
SMA <sup>2/</sup>	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13 <sup>3/</sup> , CA14 or CA16  CA16, CA 13 <sup>3/</sup>

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 steel 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) <sup>1/</sup> ; HMA Shoulders <sup>2/</sup>

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 1 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) <sup>1/</sup>										
Sieve Size	IL-19.0 mm		SMA <sup>4/</sup> IL-12.5 mm		SMA <sup>4/</sup> 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 <sup>5/</sup>	16	32 <sup>5/</sup>	34 <sup>5/</sup>	52 <sup>2/</sup>	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 <sup>3/</sup>	7.5	9.5 <sup>3/</sup>	4	6	7	9 <sup>3/</sup>
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 <sup>1/</sup>	
50	13.5	15.0	18.5	65 – 78 <sup>2/</sup>
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 <sup>1/</sup>			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 <sup>4/</sup>	3.5	17.0 <sup>2/</sup>	75 - 83
		16.0 <sup>3/</sup>	

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  $\geq 2.760$ .

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 <sup>1/</sup>**

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  $275 \pm 5$  °F ( $135 \pm 3$  °C) or less, loose Warm Mix Asphalt shall be oven aged at  $270 \pm 5$  °F ( $132 \pm 3$  °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 at the beginning of each construction year according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

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  $N_{design}$  specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and  $N_{design}$  specified.”

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

Effective: November 1, 2012

Revise: January 1, 2018

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 Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials 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, 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, HMA (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 in. (75 mm) 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, 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 HMA (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 Central Bureau of Materials 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  $\leq 1000$  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 test 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)	$\pm 6 \%$
No. 8 (2.36 mm)	$\pm 5 \%$
No. 30 (600 $\mu\text{m}$ )	$\pm 5 \%$
No. 200 (75 $\mu\text{m}$ )	$\pm 2.0 \%$
Asphalt Binder	$\pm 0.3 \%$
$G_{mm}$	$\pm 0.03$ <sup>1/</sup>

- 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 ITP, "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	
	FRAP	RAS
% Passing: <sup>1/</sup>		
1/2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	4.0%
No. 200	2.2%	4.0%
Asphalt Binder Content	0.3%	3.0%
G <sub>mm</sub>	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 homogeneous, 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, HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
  - (2) RAP from HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
  - (3) RAP from Class I, 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 laboratory prequalified by the Department for the specified testing. The consultant laboratory 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 Central Bureau of Materials Aggregate Lab for MicroDeval Testing, according to ITP 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 the 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 percent 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 <sup>1/ 2/ 4/</sup>	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified <sup>3/</sup>
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the percent asphalt binder replacement shall not exceed 50 % of the total asphalt binder in the mixture.
- 2/ When the binder replacement exceeds 15 % 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 % 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 %, the required virgin asphalt binder grade shall be PG64-28.

- 3/ When the ABR for SMA or IL-4.75 is 15 % 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/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10 %.

**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.

The RAP, FRAP and RAS stone specific gravities ( $G_{sb}$ ) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity ( $G_{sb}$ ) or Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)" procedure in the Department's Manual of Test Procedures for Materials.

**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 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  $\pm 0.5$  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 (0.1 metric ton))

(2) Batch Plants.

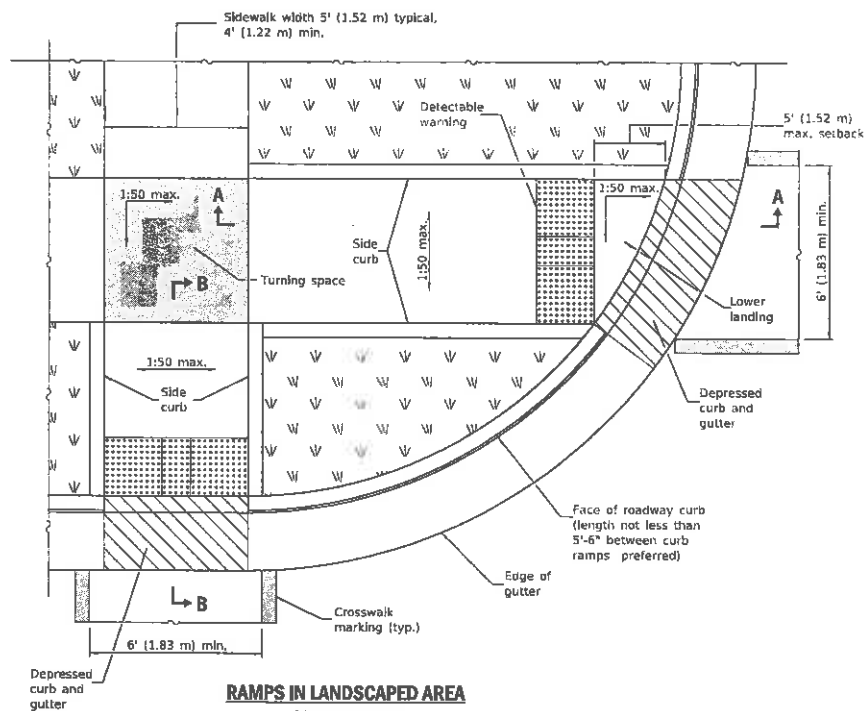
- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- f. RAS and FRAP weight to the nearest 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.

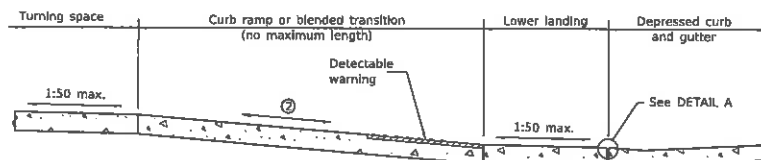
**1031.09 RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B.**

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 shall be according to the current Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. The RAP material shall meet the gradation requirements for CA 6 according to Article 1004.01(c), except the requirements for the minus No. 200 (75  $\mu$ m) sieve shall not apply. The sample for the RAP material shall be air dried to constant weight prior to being tested for gradation."

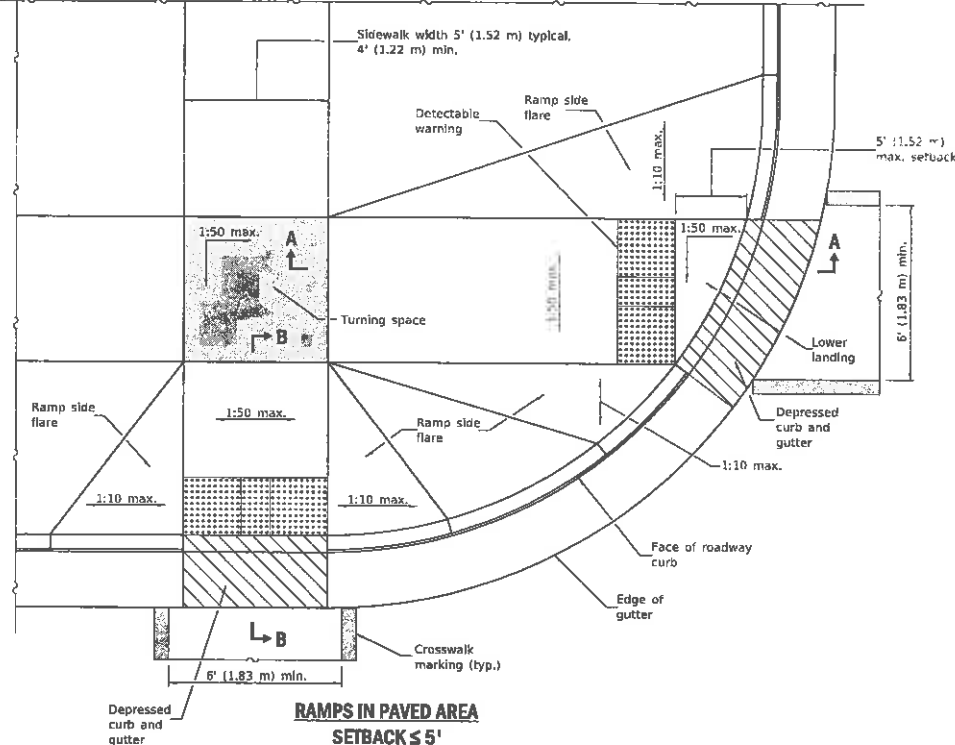


**RAMPS IN LANDSCAPED AREA**  
**SETBACK ≤ 5'**

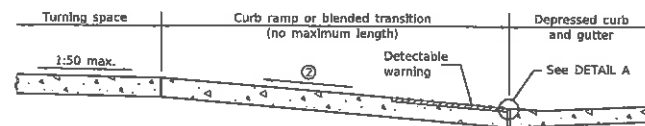


**SECTION A-A**

- ② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

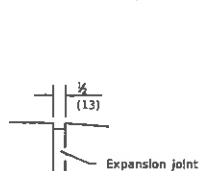


**RAMPS IN PAVED AREA**  
**SETBACK ≤ 5'**

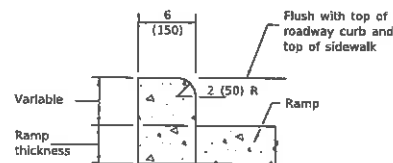


**SECTION B-B**

- ② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



**DETAIL A**



**SIDE CURB DETAIL**

See Sheet 2 for GENERAL NOTES.

**PERPENDICULAR CURB RAMPS  
FOR SIDEWALKS**

(Sheet 1 of 2)

**STANDARD 424001-11**

DATE	REVISIONS
1-1-19	Removed "15-foot rule", added "Blended transitions" and placement tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at turning spaces and lower landings.

Illinois Department of Transportation

PASSED January 1, 2019

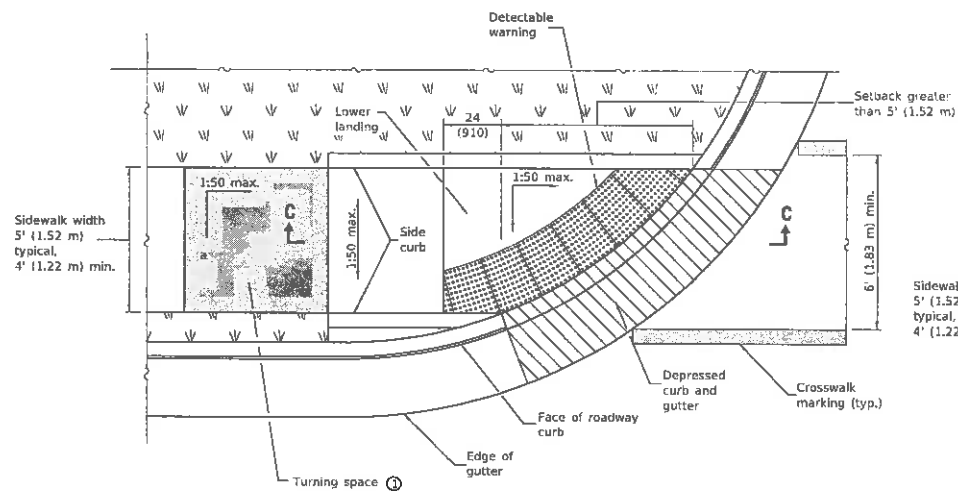
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019

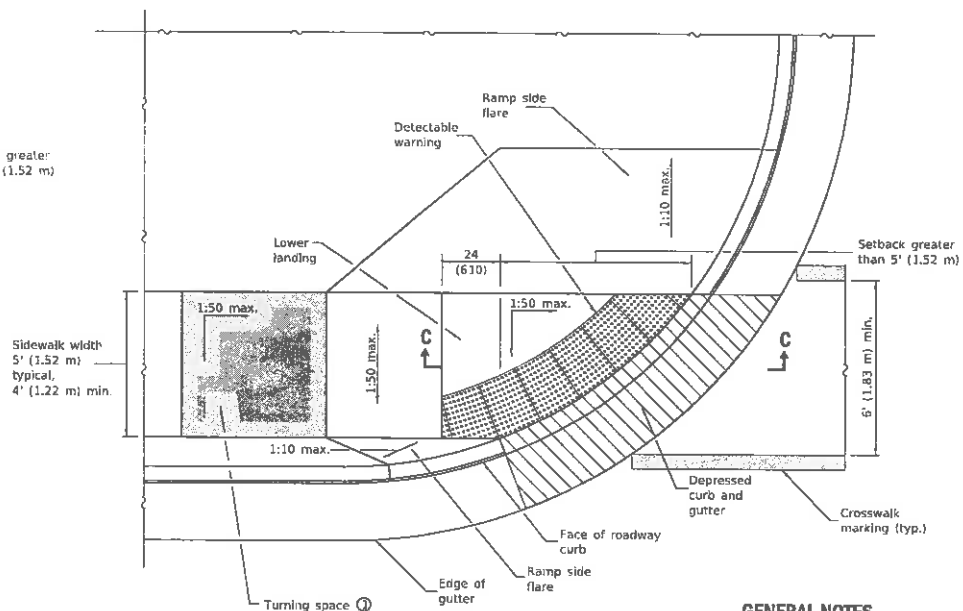
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-19





**RAMP IN LANDSCAPED AREA**  
**SETBACK > 5'**



**RAMP IN PAVED AREA**  
**SETBACK > 5'**

**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.

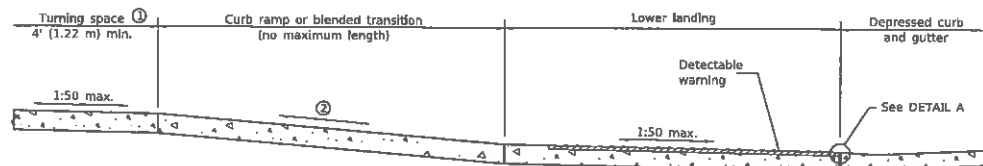
Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

**Side Border** - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

**Curb Set-Back** - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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



**SECTION C-C**

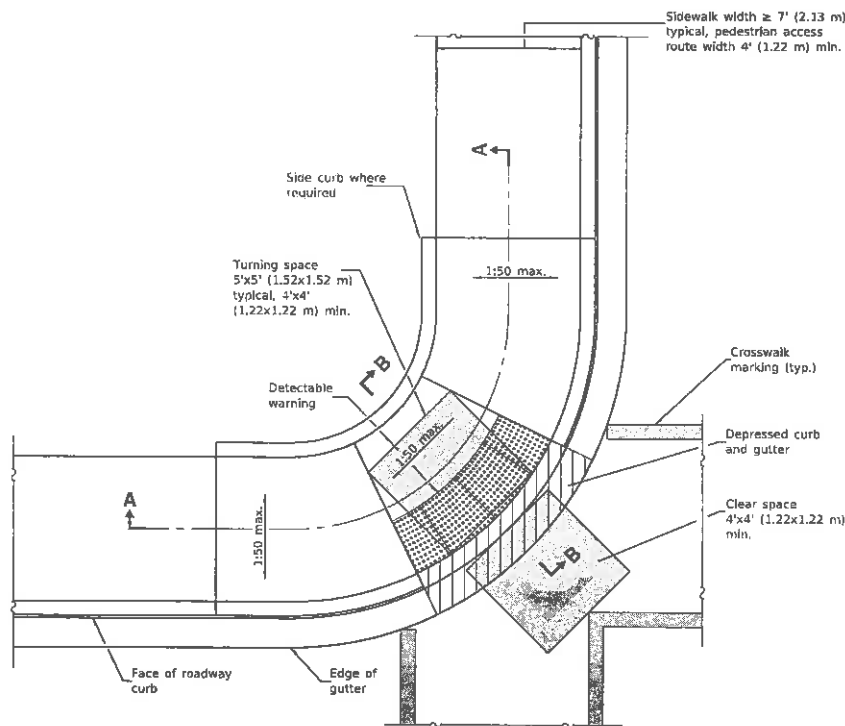
- ① This turning space not required for blended transitions.
- ② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

**PERPENDICULAR CURB RAMPS  
FOR SIDEWALKS**

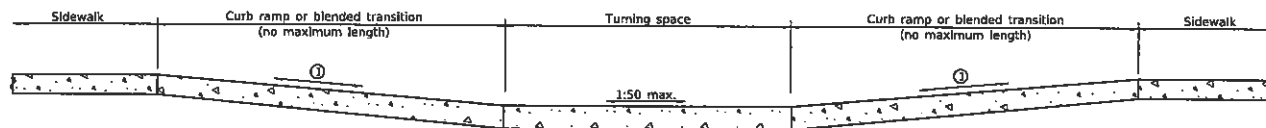
(Sheet 2 of 2)

**STANDARD 424001-11**



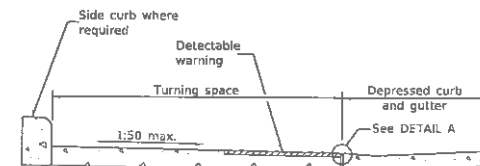


**CORNER PARALLEL CURB RAMP**

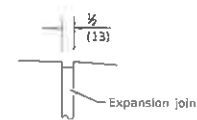


**SECTION A-A**

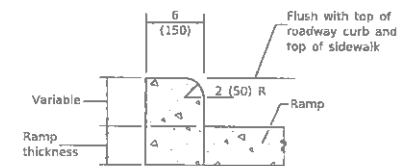
- ① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



**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.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

**Side Border** - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

**Curb Set-Back** - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

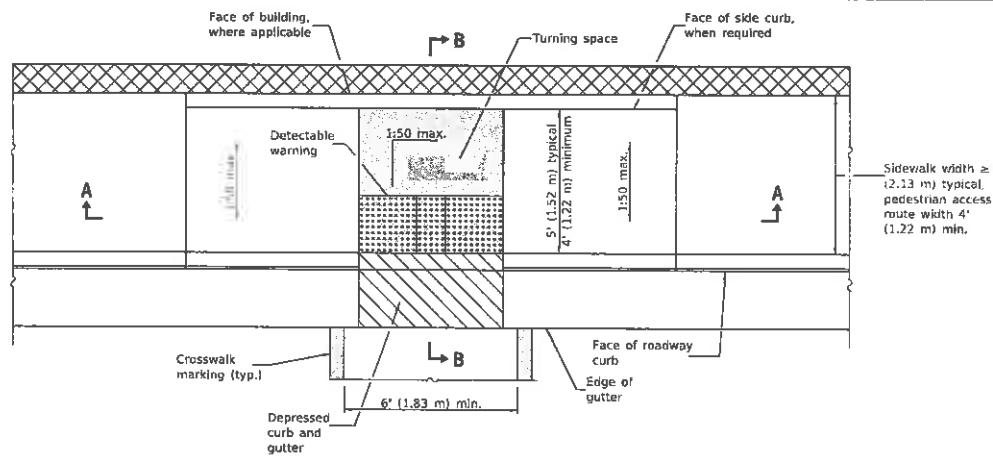
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-19	Removed upper landing, added blended transition and detectable warning tolerances.
1-1-17	Revised sidewalk width to include 24 (610) buffer behind curb.

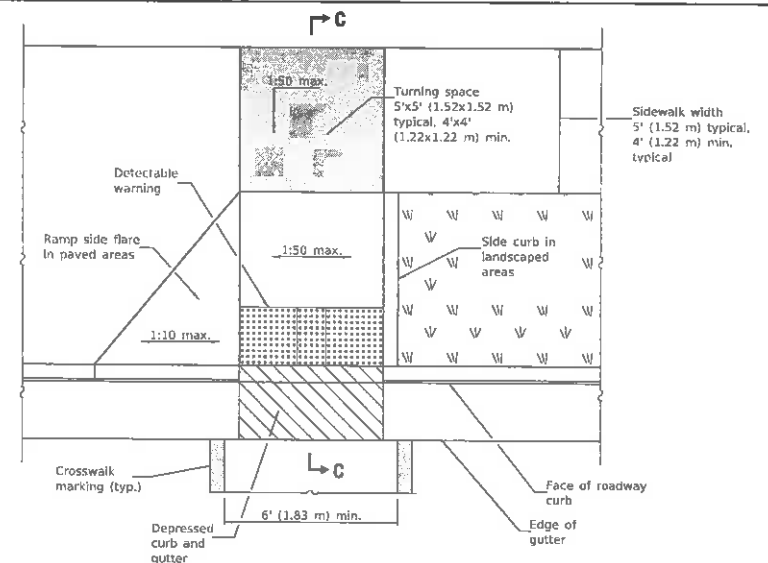
## CORNER PARALLEL CURB RAMPS FOR SIDEWALKS

**STANDARD 424011-04**

Illinois Department of Transportation	
PASSED	January 3, 2019
ENGINEER OF POLICY AND PROCEDURES	
APPROVED	January 3, 2019
ENGINEER OF DESIGN AND ENVIRONMENT	



**PARALLEL MID-BLOCK CURB RAMP**



**PERPENDICULAR MID-BLOCK CURB RAMP**

**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.

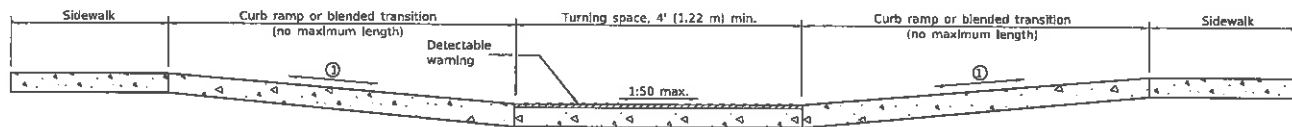
Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared slides) but a border along each side up to 2 in. (50 mm) in. width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

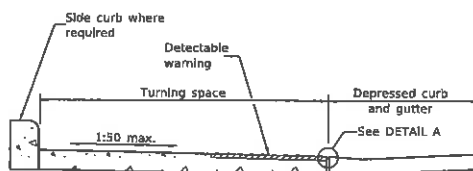
See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

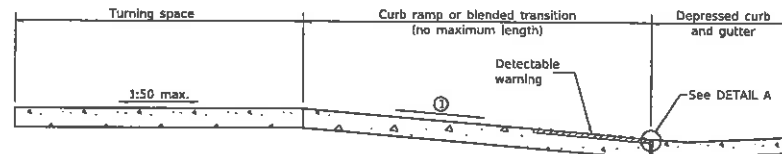


**SECTION A-A**

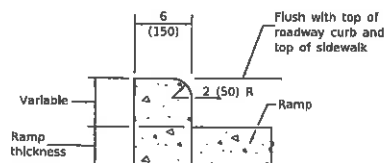
- ① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



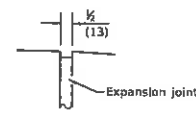
**SECTION B-B**



**SECTION C-C**



**SIDE CURB DETAIL**



**DETAIL A**

DATE	REVISIONS
1-1-19	Removed upper landing, added blended transitions and detectable warning tolerances.
1-1-18	Omitted diagonal slope at turning spaces and upper landings.

**MID-BLOCK CURB RAMPS FOR SIDEWALKS**

**STANDARD 424016-05**

Illinois Department of Transportation

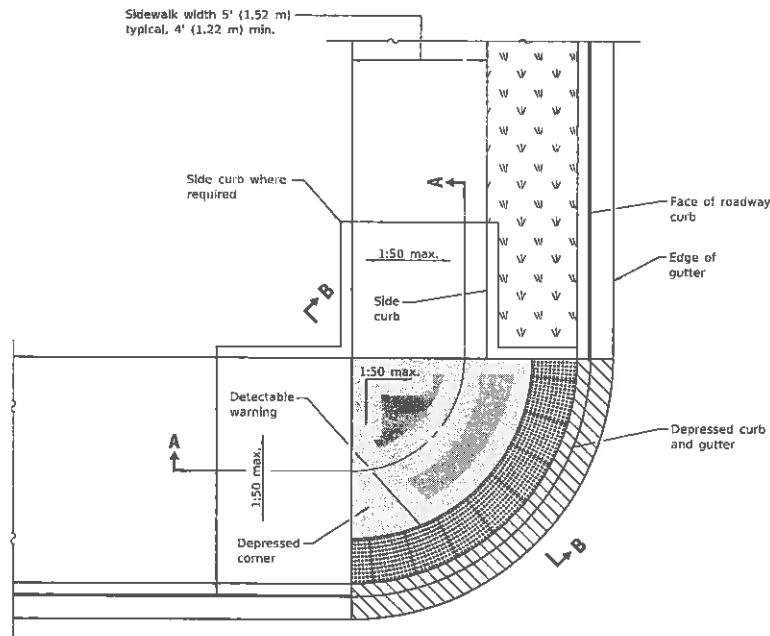
PASSED: *[Signature]* JANUARY 1, 2019

ENGINEER OF POLICY AND PROCEDURES

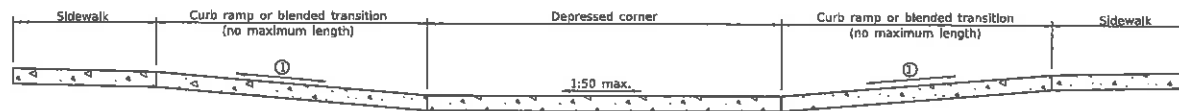
APPROVED: *[Signature]* JANUARY 1, 2019

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED: 1-1-19

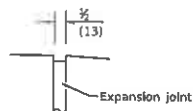


**DEPRESSED CORNER**

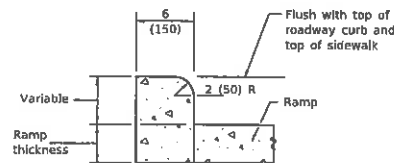


**SECTION A-A**

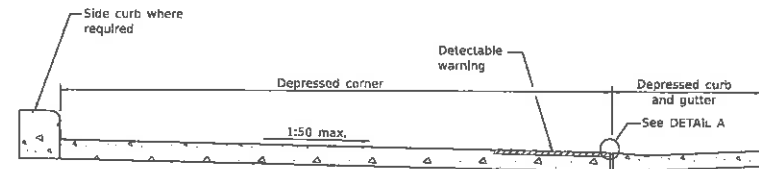
- ① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



**DETAIL A**



**SIDE CURB DETAIL**



**SECTION B-B**

**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.

Detectable warnings are shown in their ideal tolerances but the following placement tolerances are allowed.

**Side Border** - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

**Curb Set-Back** - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

DATE	REVISIONS	<b>DEPRESSED CORNER FOR SIDEWALKS</b>
1-1-19	Removed upper landings, added blended transition and detectable warning tolerances.	
1-1-18	Omitted diagonal slope at turning spaces and upper landings.	<b>STANDARD 424021-05</b>

Illinois Department of Transportation

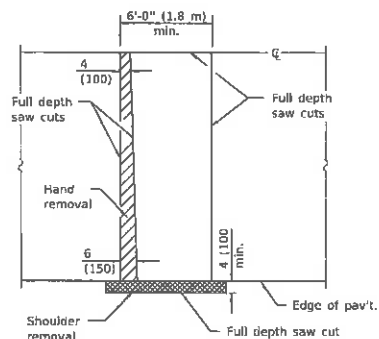
PASSED January 1, 2019

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019

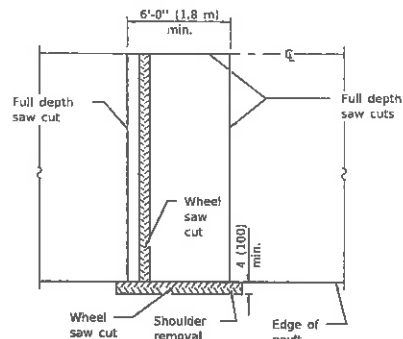
ENGINEER OF DESIGN AND ENVIRONMENT

SEAL 1-1-17



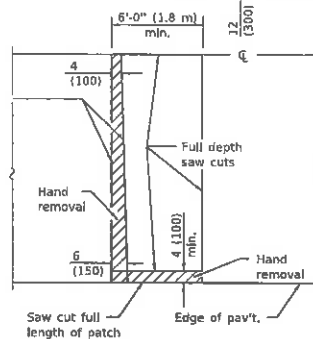
**PAVEMENT SAWING DETAIL**

(HMA SHOULDER)



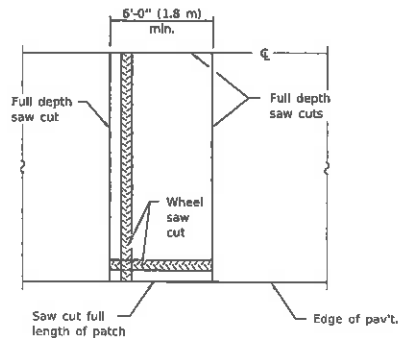
**ALTERNATE SAWING DETAIL**

(HMA SHOULDER)



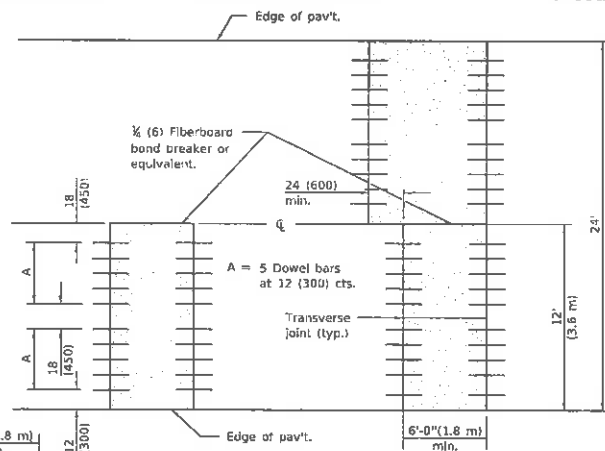
**PAVEMENT SAWING DETAIL**

(PCC SHOULDER)

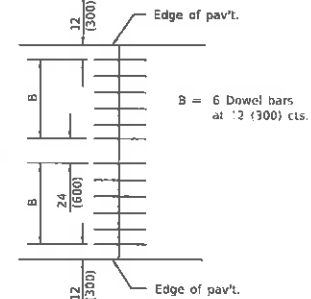


**ALTERNATE SAWING DETAIL**

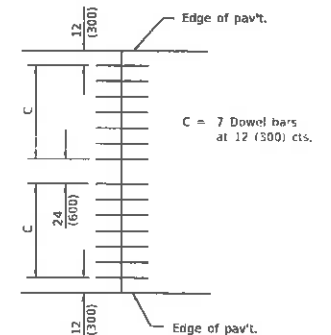
(PCC SHOULDER)



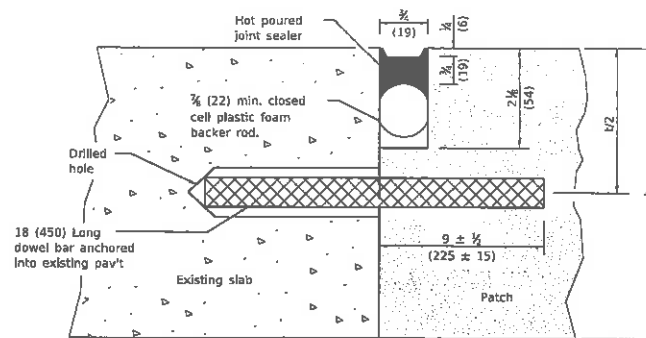
**12' (3.6 m) WIDE LANES**



**14' (4.2 m) WIDE RAMP**

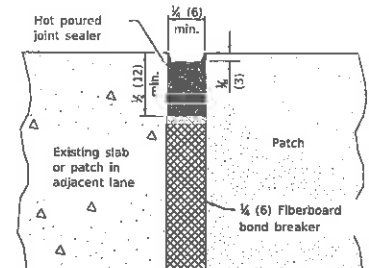


**16' (4.8 m) WIDE RAMP**



**TRANSVERSE JOINT**

DOWEL BAR TABLE		
PAVEMENT THICKNESS	DOWEL BAR DIAMETER	HOLE DIAMETER
10 (250) or greater	1 1/2 (38)	1 3/4 (41)
8 (200) thru 9.99 (249)	1 1/4 (32)	1 3/8 (35)
Less than 8 (200)	1 (25)	1 1/8 (29)



**CENTERLINE JOINT**

### GENERAL NOTES

The transverse joints for Class B patches shall align with joints or cracks in the adjacent lane whenever possible.

See Standard 420701 for details of welded wire reinforcement.

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

DATE	REVISIONS
1-1-19	Revised reference to Standard 420701 in General Notes.
1-1-18	Revised DOWEL BAR TABLE.

## CLASS B PATCHES

(Sheet 1 of 2)

**STANDARD 442101-09**

Illinois Department of Transportation

PASSED January 1, 2019

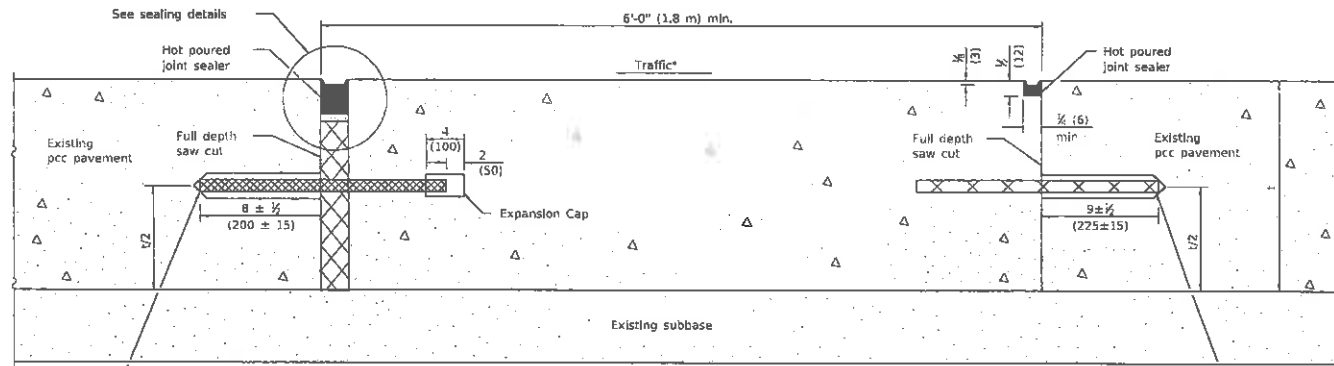
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019

ENGINEER OF DESIGN AND ENVIRONMENT

442101-09 (03/08/20)

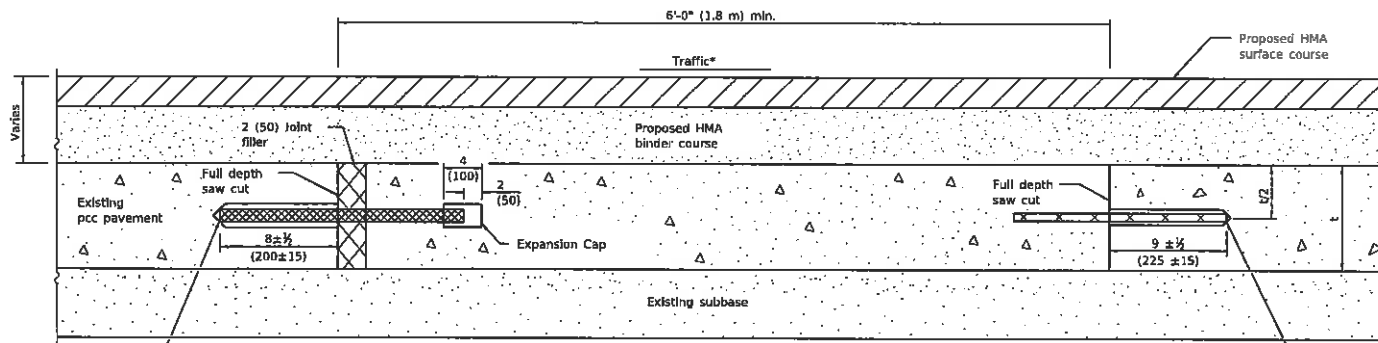
## TRANSVERSE EXPANSION JOINTS



18 (450) Long dowel bars anchored into existing pavement at 12 (300) cts.

### METHOD I (Without Resurfacing)

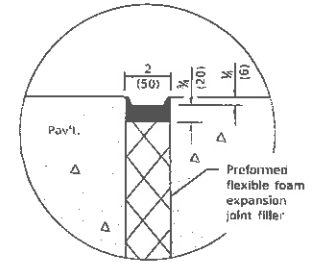
No. 10x18 (No. 32x450)  
Tie bars anchored into existing pavement at 12 (300) cts.



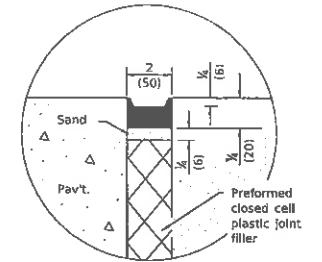
18 (450) Long dowel bars anchored into existing pavement at 12 (300) cts.

### METHOD II (With Resurfacing)

No. 10x18 (No. 32x450)  
Tie bars anchored into existing pavement at 12 (300) cts.



### SEALING DETAIL



### SEALING DETAIL

### NOTE

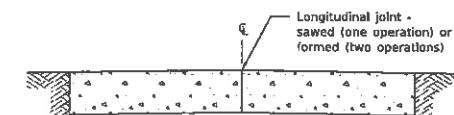
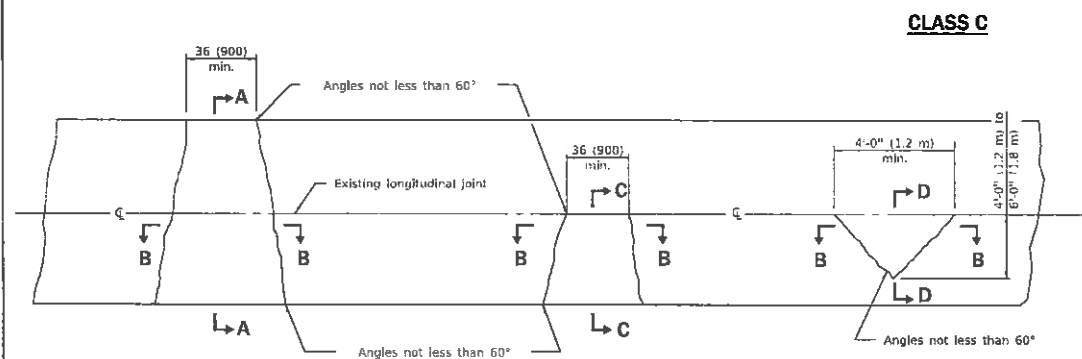
When re-establishing a transverse expansion joint on a two-lane, two-way road, reverse the orientation of the dowel bars with respect to traffic for one of the patches such that the joint will be continuous across both lanes.

Illinois Department of Transportation	
PASSED	January 1, 2019
ENGINEER OF POLICY AND PROCEDURES	
APPROVED	January 3, 2019
ENGINEER OF DESIGN AND ENVIRONMENT	

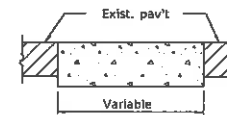
## CLASS B PATCHES

(Sheet 2 of 2)

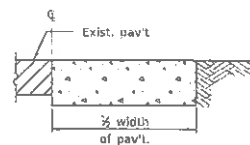
STANDARD 442101-09



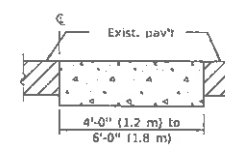
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

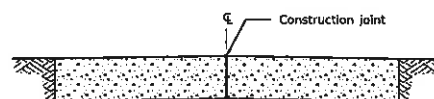
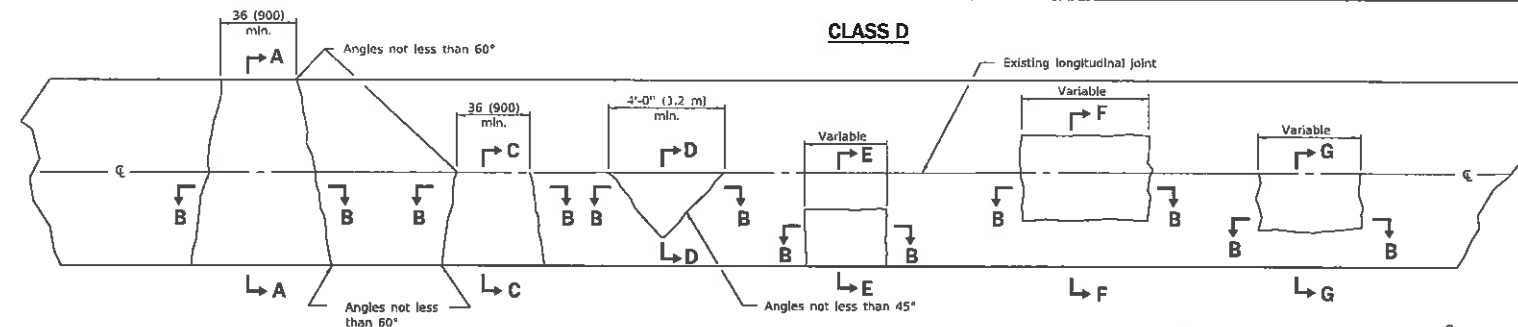


**SECTION D-D**

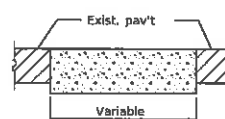


**DETAIL OF SAWED CONTRACTION JOINT**

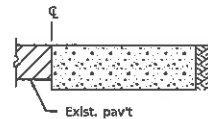
Note:  
Longitudinal joints shall be as detailed on Standard 420001, except tie bars are not required for patches 20'-0" (6.0 m) or less in length.



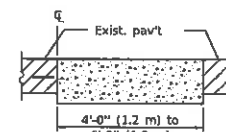
**SECTION A-A**  
(Built in two operations)



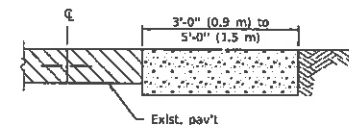
**SECTION B-B**



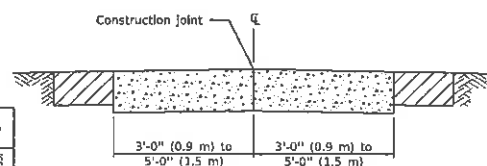
**SECTION C-C**



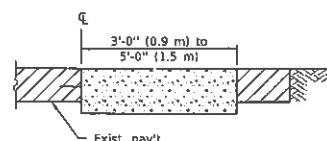
**SECTION D-D**



**SECTION E-E**



**SECTION F-F**  
(Built in two operations)



**SECTION G-G**

**GENERAL NOTES**

Existing tie bars shall be either cut or removed. Marginal bars shall be cut.

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

DATE	REVISIONS
1-1-08	Switched units to English (metric).
1-1-07	Revised Note for Class C patches.

**CLASS C and D PATCHES**

**STANDARD 442201-03**

Illinois Department of Transportation

PASSED: *[Signature]* January 1, 2008

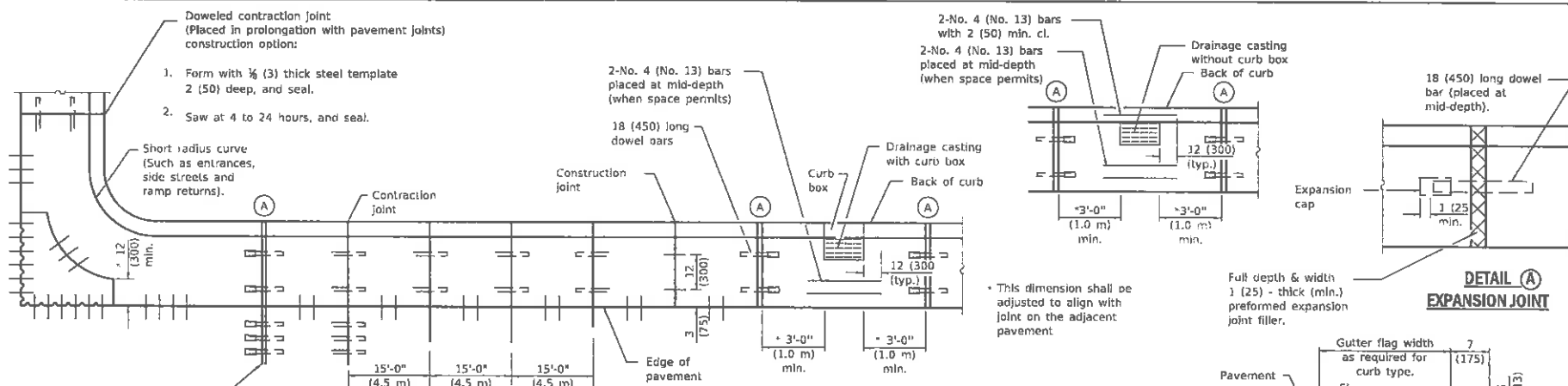
ENGINEER OF POLICY AND PROCEDURES

APPROVED: *[Signature]* January 1, 2008

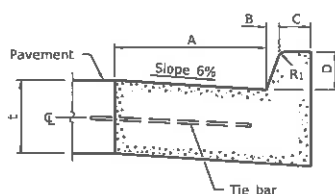
ENGINEER OF DESIGN AND ENVIRONMENT

SD000 1-1-03

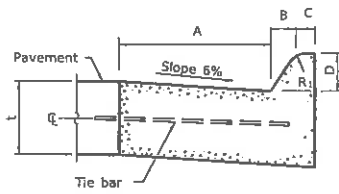




**PLAN**  
**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**



**BARRIER CURB**



**MOUNTABLE CURB**

TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R <sub>1</sub>
B-6.06 *	6	1	6	6	1
(B-15.15)	(150)	(25)	(150)	(150)	(25)
B-6.12	12	1	6	6	1
(B-15.3)	(300)	(25)	(150)	(150)	(25)
B-6.18	18	1	6	6	1
(B-15.45)	(450)	(25)	(150)	(150)	(25)
B-6.24	24	1	6	6	1
(B-15.60)	(600)	(25)	(150)	(150)	(25)
B-9.12	12	2	5	9	1
(B-22.30)	(300)	(50)	(125)	(225)	(25)
B-9.18	18	2	5	9	1
(B-22.45)	(450)	(50)	(125)	(225)	(25)
B-9.24	24	2	5	9	1
(B-22.60)	(600)	(50)	(125)	(225)	(25)

\* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB						
TYPE	A	B	C	D	R <sub>1</sub>	R <sub>2</sub>
M-2.06	6	2	4	2	3	2
(M-5.15)	(150)	(50)	(100)	(50)	(75)	(50)
M-2.12	12	2	4	2	3	2
(M-5.30)	(300)	(50)	(100)	(50)	(75)	(50)
M-4.06	6	4	3	4	3	NA
(M-10.15)	(150)	(100)	(75)	(100)	(75)	NA
M-4.12	12	4	3	4	3	NA
(M-10.30)	(300)	(100)	(75)	(100)	(75)	NA
M-4.18	18	4	3	4	3	NA
(M-10.45)	(450)	(100)	(75)	(100)	(75)	NA
M-4.24	24	4	3	4	3	NA
(M-10.60)	(600)	(100)	(75)	(100)	(75)	NA
M-6.06	6	6	2	6	2	NA
(M-15.15)	(150)	(150)	(50)	(150)	(50)	NA
M-6.12	12	6	2	6	2	NA
(M-15.30)	(300)	(150)	(50)	(150)	(50)	NA
M-6.18	18	6	2	6	2	NA
(M-15.45)	(450)	(150)	(50)	(150)	(50)	NA
M-6.24	24	6	2	6	2	NA
(M-15.60)	(600)	(150)	(50)	(150)	(50)	NA

Illinois Department of Transportation

PASSED: *Matthew Bond* January 3, 2018

ENGINEER OF POLICY AND PROCEDURES

APPROVED: *Matthew Bond* January 3, 2018

ENGINEER OF DESIGN AND ENVIRONMENT

68-1-1 07/2002

**M-2.06 (M-5.15) and M-2.12 (M-5.30)**

DATE	REVISIONS
1-1-18	Revised General Note for tie bar spacing to 36 (900) cts.
1-1-15	Added B-6.06 (B-15.15) barrier curb and gutter to table (corner islands only).

## CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 1 of 2)

STANDARD 606001-07

### GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

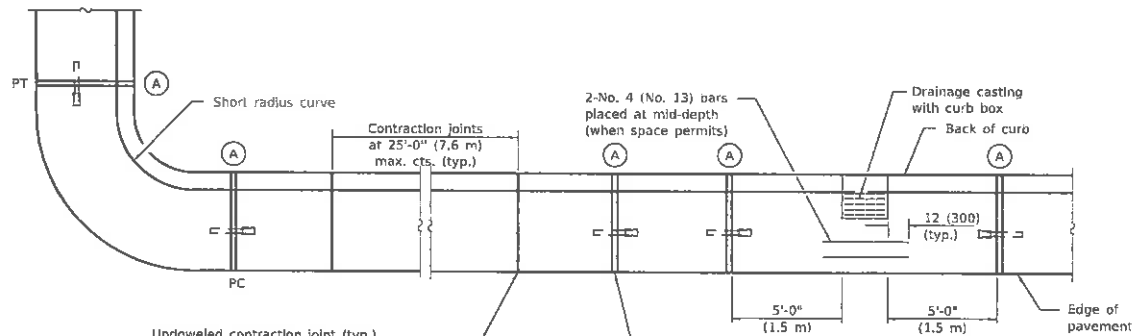
Longitudinal joint tie bars shall be No. 6 (No. 19) at 36 (900) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

See Standard 606301 for details of corner islands.

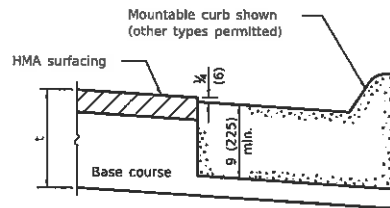
All dimensions are in inches (millimeters) unless otherwise shown.



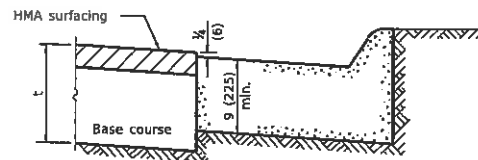
Undoweled contraction joint (typ.) construction options:

1. Form with  $\frac{1}{8}$  (3) thick steel template 2 (50) deep, and seal.
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert  $\frac{1}{4}$  (20) thick preformed joint filler full depth and width.

### PLAN

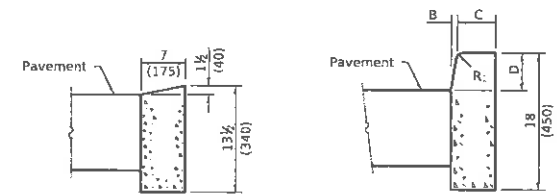


### ON DISTURBED SUBGRADE



### ON UNDISTURBED SUBGRADE

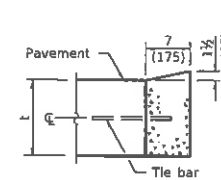
### ADJACENT TO FLEXIBLE PAVEMENT



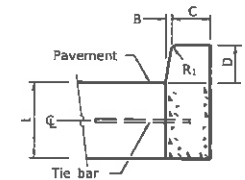
### DEPRESSED CURB

### BARRIER CURB

### ADJACENT TO FLEXIBLE PAVEMENT



### DEPRESSED CURB



### BARRIER CURB

### ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

### CONCRETE CURB TYPE B

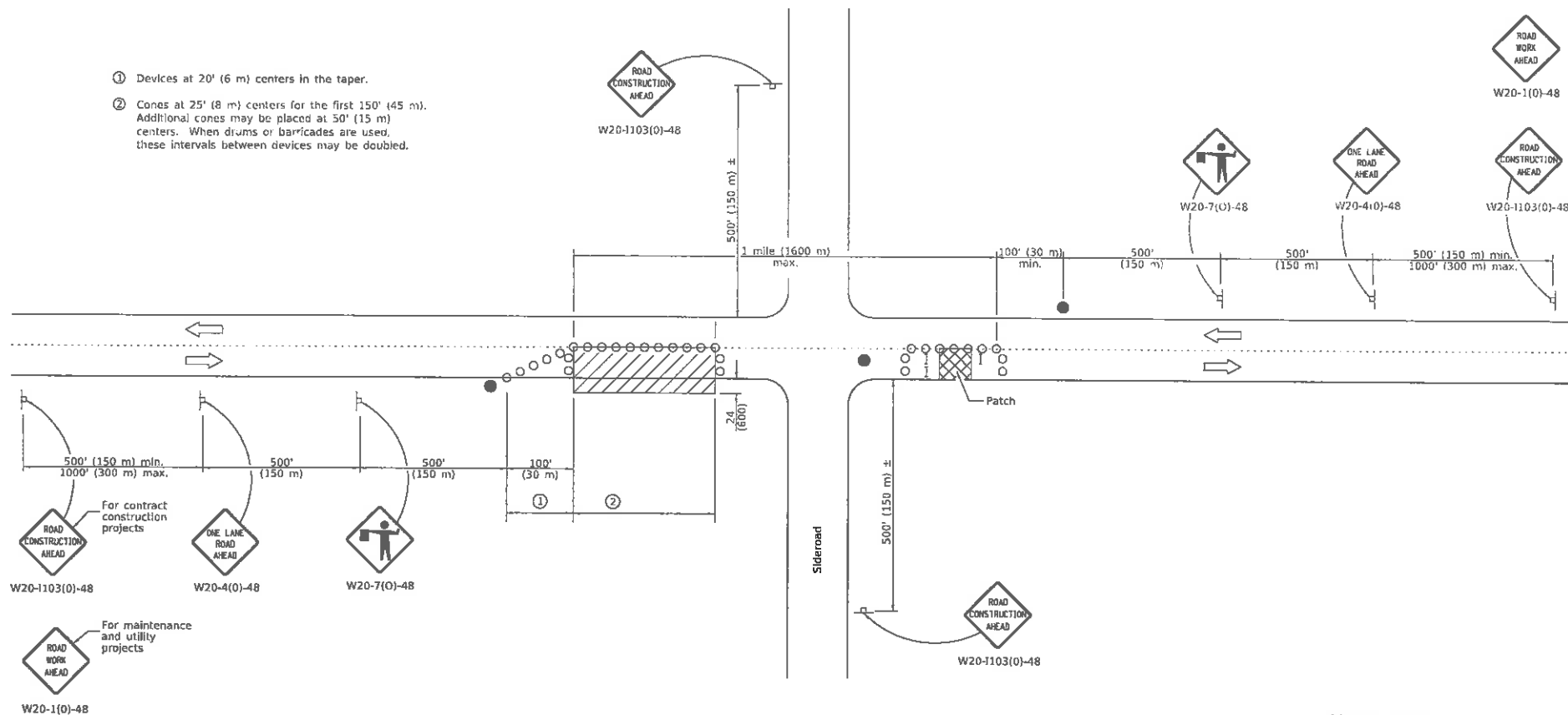
### CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

STANDARD 606001-07

Illinois Department of Transportation	
PASSED	January 1, 2018
ENGINEER OF POLICY AND PROCEDURES	
APPROVED	January 1, 2018
ENGINEER OF DESIGN AND ENVIRONMENT	

- ① Devices at 20' (6 m) centers in the taper.
- ② Cones at 25' (8 m) centers for the first 150' (45 m). Additional cones may be placed at 50' (15 m) centers. When drums or barricades are used, these intervals between devices may be doubled.



#### TYPICAL APPLICATIONS

Isolated patching  
Utility operations  
Storm sewer  
Culverts  
Cable placement

#### SYMBOLS

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

#### GENERAL NOTES

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

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

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

Illinois Department of Transportation

APPROVED January 1, 2019  
ENGINEER OF SAFETY PROG. AND ENGINEERING

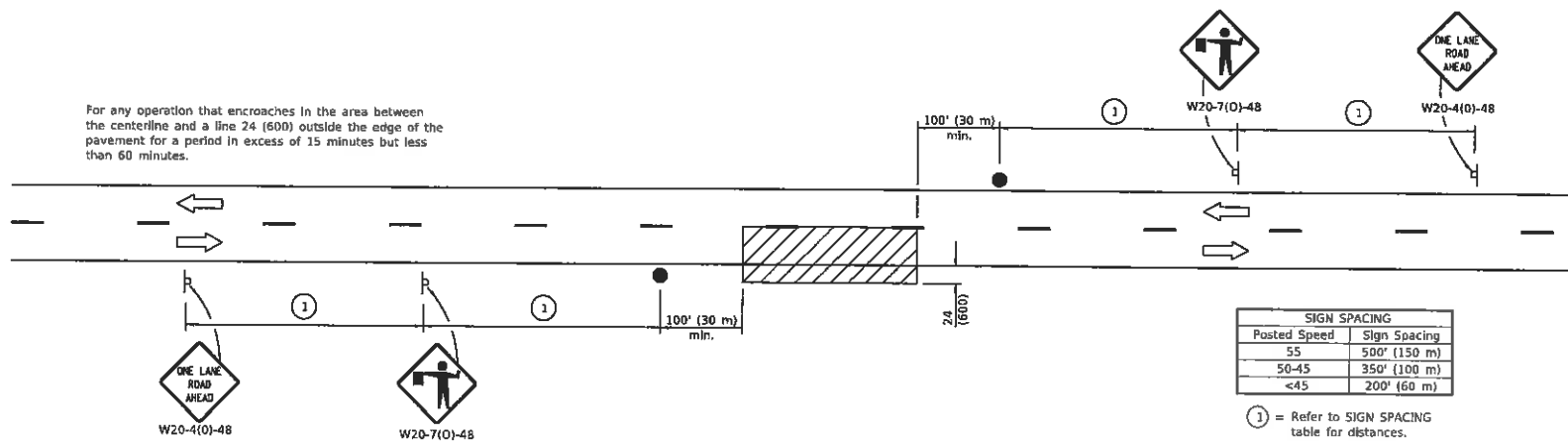
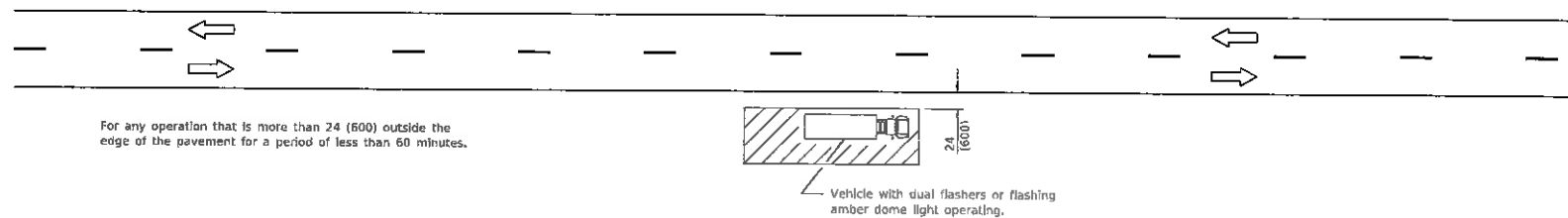
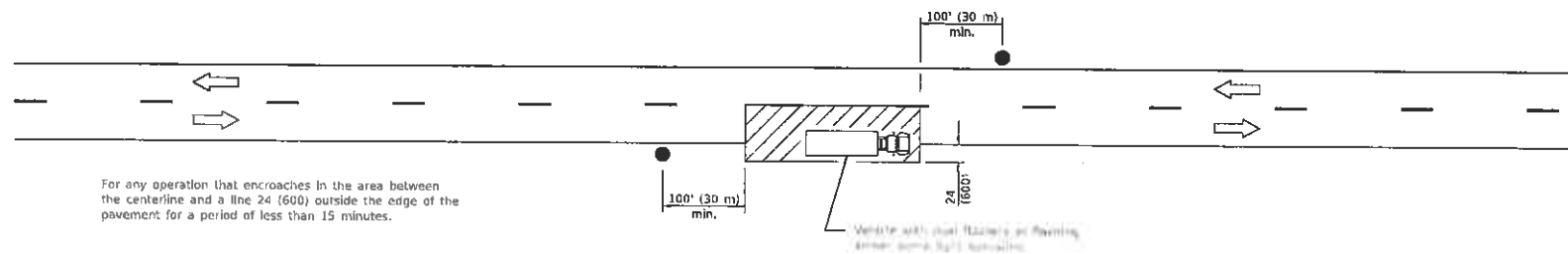
APPROVED January 1, 2019  
ENGINEER OF DESIGN AND ENVIRONMENT

SD-11-1-17

DATE	REVISIONS
1-1-19	Revised device spacing in taper.
1-2-11	Revised flagger sign.

**LANE CLOSURE, 2L, 2W,  
DAY ONLY,  
FOR SPEEDS ≥ 45 MPH**

**STANDARD 701201-05**



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

① = Refer to SIGN SPACING table for distances.

### TYPICAL APPLICATIONS

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

### SYMBOLS

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

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

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).

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

STANDARD 701301-04

Illinois Department of Transportation

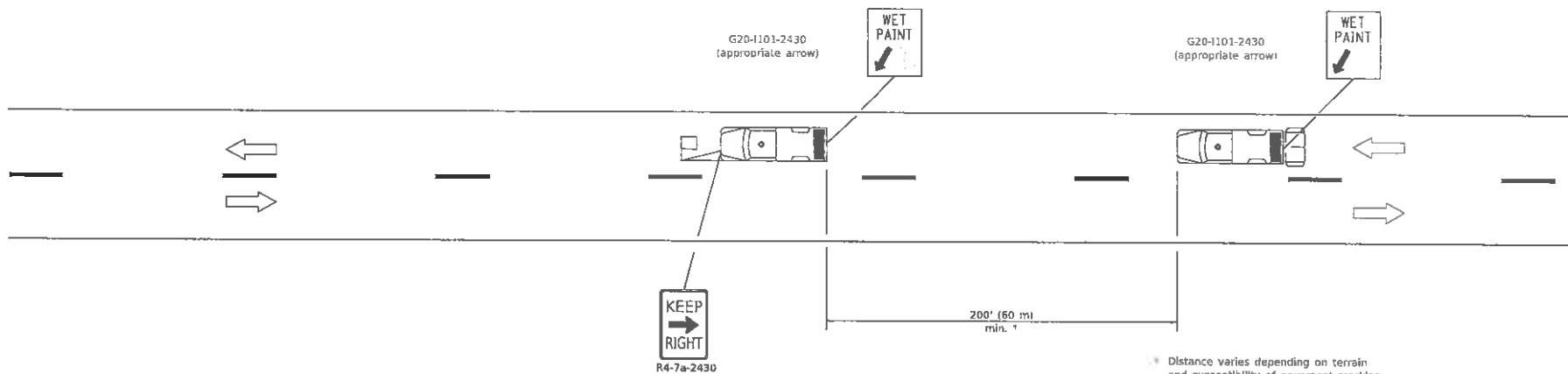
PASSED January 3, 2011

ENGINEER OF SAFETY ENGINEERING

APPROVED January 3, 2011

ENGINEER OF DESIGN AND ENVIRONMENT





DESIGNED 1-1-87



#### TYPICAL APPLICATIONS

Landscaping work  
Utility work  
Pavement marking  
Weed spraying  
Roadometer measurements  
Debris cleanup  
Crack pouring

#### SYMBOLS

-  Arrow board (Hazard Mode only)
-  Truck with headlights, emergency flashers and flashing amber light, (visible from all directions)
-  18x18 (450x450) min. orange flag (use when guide wheel is used)
-  Truck mounted attenuator

#### GENERAL NOTES

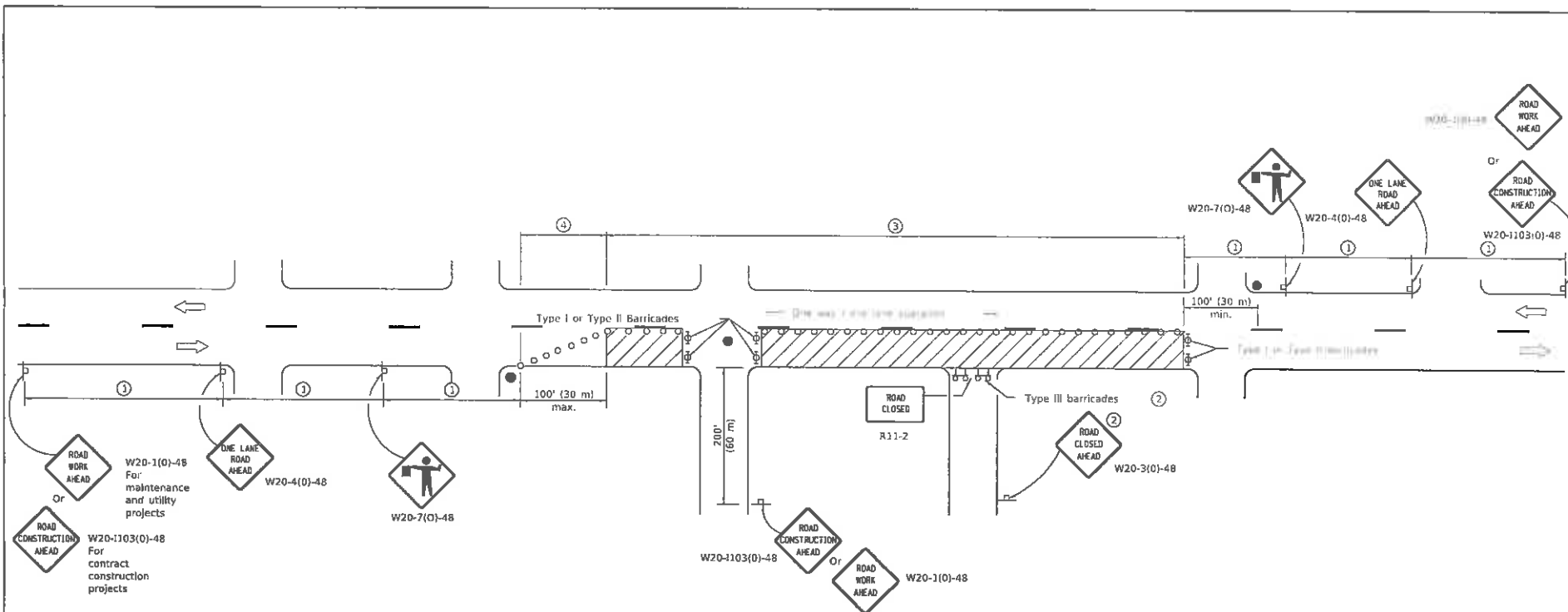
This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For additional information, see instructions on the permit, sign (ST44), A Standard 10141B.

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

Illinois Department of Transportation	
PASSED	JANUARY 1, 2009
ENGINEER OF OPERATIONS	
APPROVED	JANUARY 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT	

DATE	REVISIONS	LANE CLOSURE 2L, 2W MOVING OPERATIONS- DAY ONLY
1-1-09	Switched units to	
	English (metric). Omitted	
	Pass With Care sign.	
1-1-00	Elim. speed restrictions	
	in Standard title.	
		STANDARD 701311-03



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 slideroad 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.

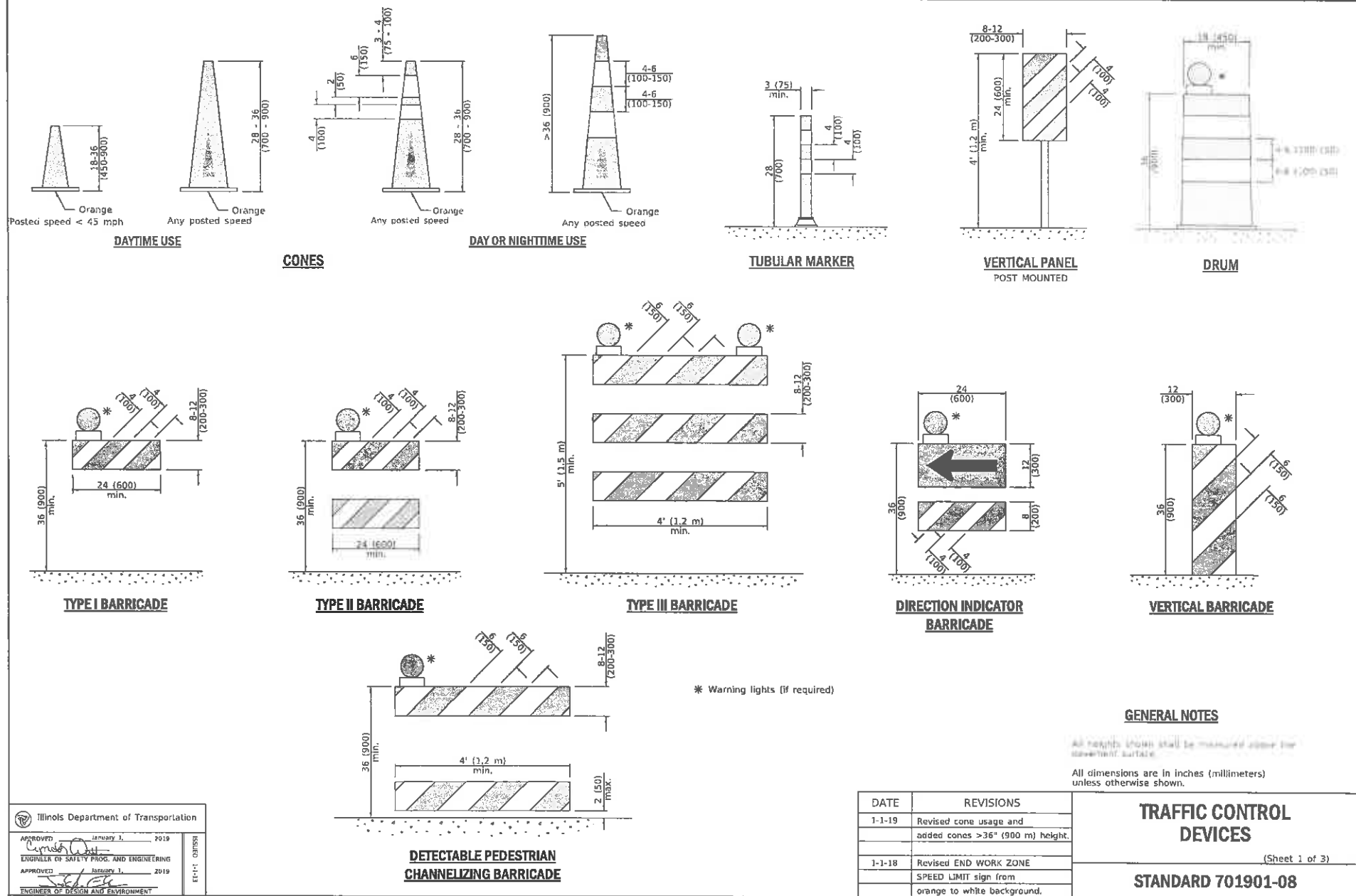
### GENERAL NOTES

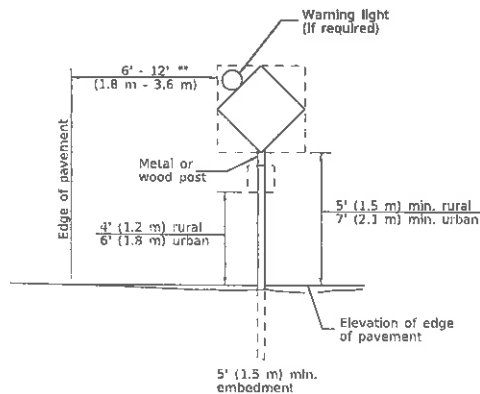
This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

DATE	REVISIONS	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
1-1-11	Revised flagger sign.	
1-1-09	Switched units to English (metric).	STANDARD 701501-06
	Corrected sign No.'s.	

Illinois Department of Transportation	
PASSED January 3, 2011	DESIGNED 681-1-148
ENGINEER OF SAFETY ENGINEERING	
APPROVED January 3, 2011	
ENGINEER OF DESIGN AND ENVIRONMENT	





### POST MOUNTED SIGNS

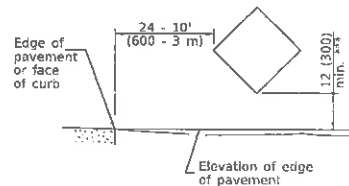
When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



W12-1103-4848

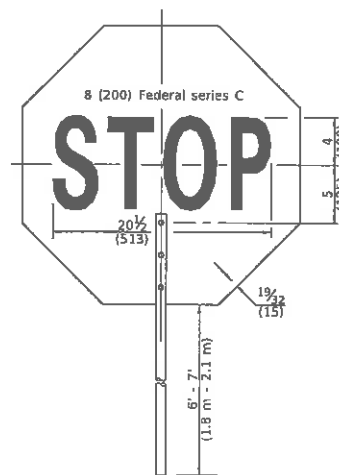
### WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.

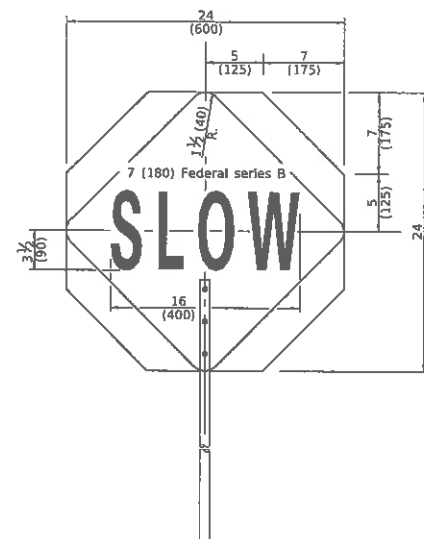


### SIGNS ON TEMPORARY SUPPORTS

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.

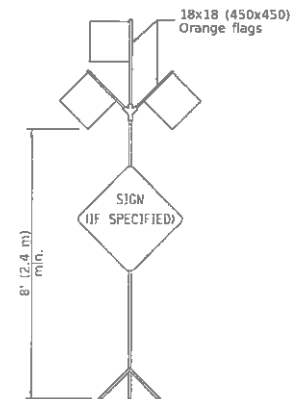


FRONT SIDE



REVERSE SIDE

### FLAGGER TRAFFIC CONTROL SIGN



### HIGH LEVEL WARNING DEVICE

ROAD  
CONSTRUCTION  
NEXT X MILES

G20-1104(0)-6036

END  
CONSTRUCTION

G20-1105(0)-6024

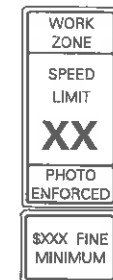
This signing is required for all projects 2 miles (3200 m) or more in length.

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



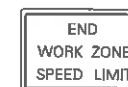
W21-1115(0)-3618

R2-1-3648

R10-1108p-3618 \*\*\*\*

R2-1106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.



G20-1103-6036

This sign shall be used when the above sign assembly is used.

### HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

\*\*\*\* R10-1108p shall only be used along roadways under the jurisdiction of the State.

### TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08

Illinois Department of Transportation

APPROVED January 1, 2019

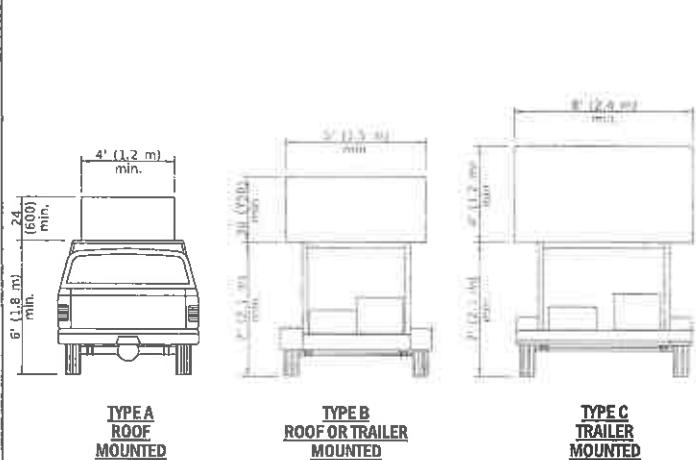
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019

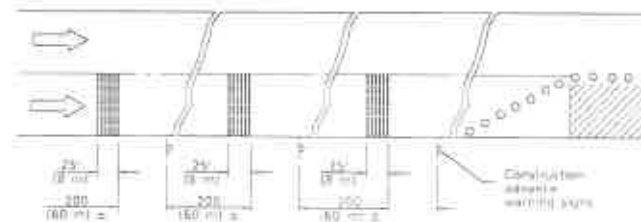
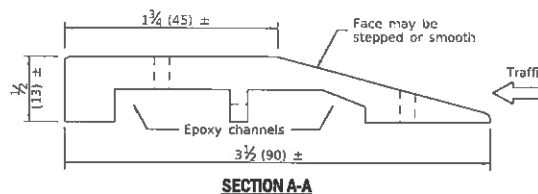
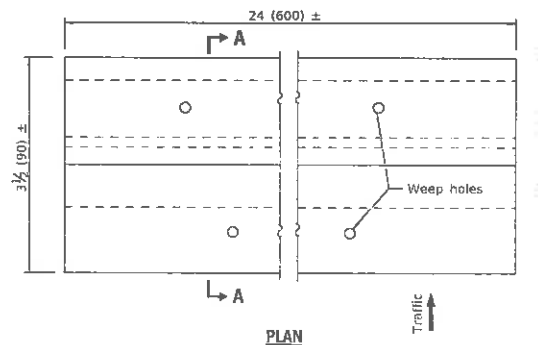
ENGINEER OF DESIGN AND ENVIRONMENT

814-1 0155

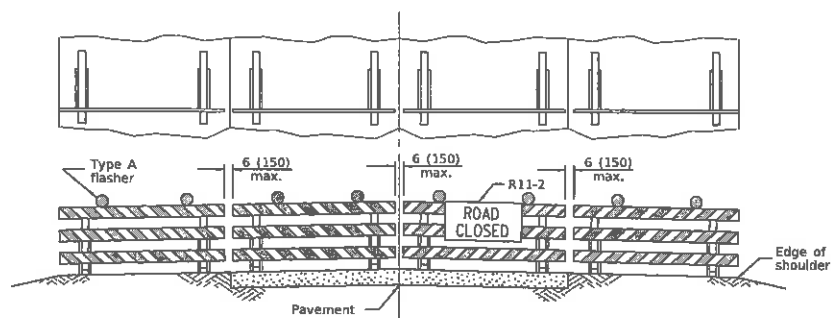




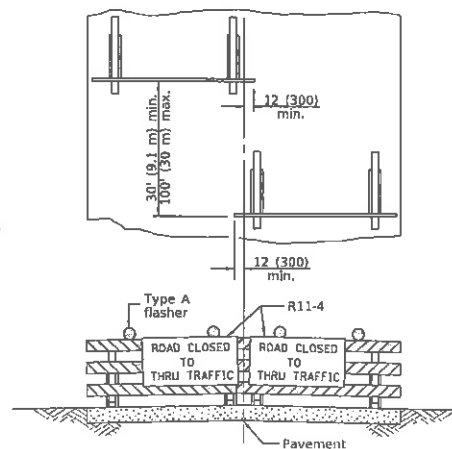
#### ARROW BOARDS



#### TEMPORARY RUMBLE STRIPS



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.

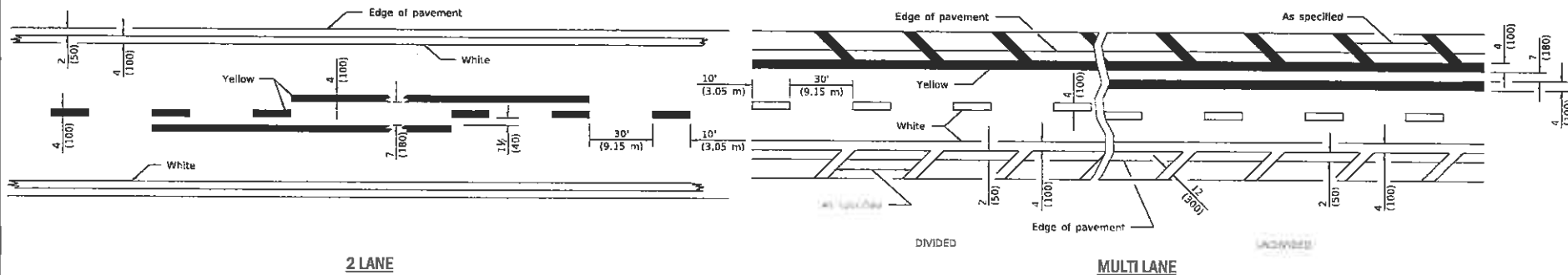
#### TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation	
APPROVED January 1, 2019	BOARD 1-1-1 E14-1
ENGINEER OF SAFETY PROG. AND ENGINEERING	
APPROVED January 1, 2019	
ENGINEER OF DESIGN AND ENVIRONMENT	

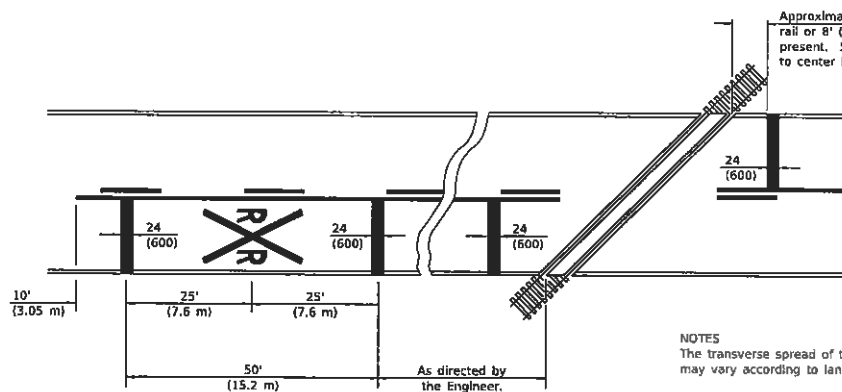
#### TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08



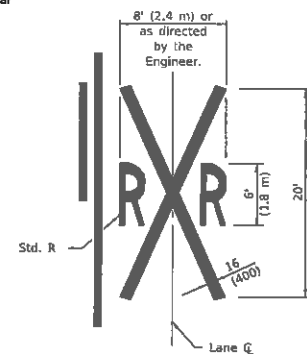
### LANE AND EDGE LINES



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.

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

Illinois Department of Transportation

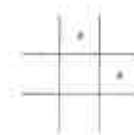
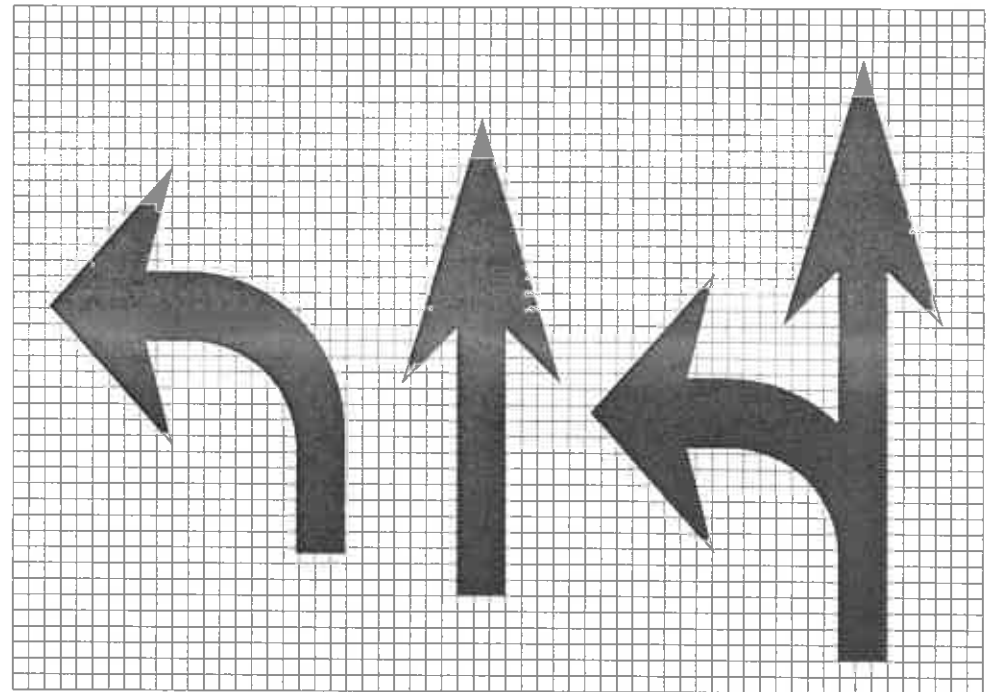
PASSED January 1, 2015

ENGINEER OF OPERATIONS

APPROVED January 1, 2015

ENGINEER OF DESIGN AND ENVIRONMENT

48-1-1 C-155



Legend Height	Arrow Size	#
6' (1.8 m)	Small	25 (75)
8' (2.4 m)	Large	30 (90)

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.

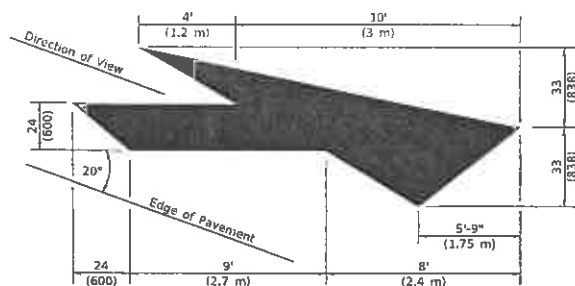
#### LETTER AND ARROW GRID SCALE

North Carolina Department of Transportation  
 PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
 COUNTY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_  
 PROJECT NO. \_\_\_\_\_

#### TYPICAL PAVEMENT MARKINGS

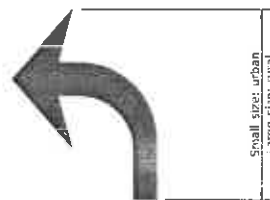
(Sheet 2 of 2)

STANDARD 780001-05



#### LANE-REDUCTION ARROW

Right lane-reduction arrow shown.  
Use mirror image for left lane.

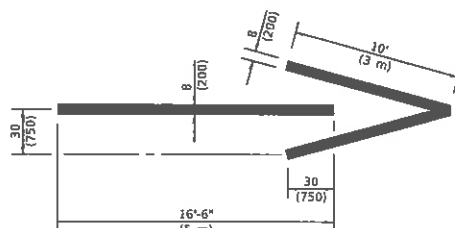


20' (6 m): urban  
50' (15 m): rural  
(Between arrow  
and word or  
between words)

ONLY

6' (1.8 m): urban  
8' (2.4 m): rural

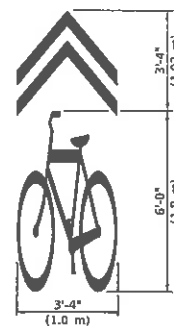
#### WORD AND ARROW LAYOUT



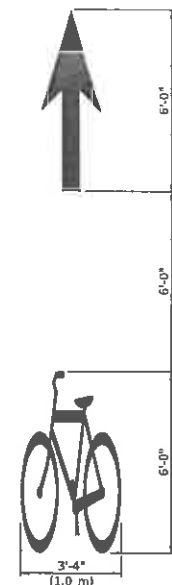
#### WRONG WAY ARROW



#### INTERNATIONAL SYMBOL OF ACCESSIBILITY



#### SHARED LANE SYMBOL



#### BIKE SYMBOL (Arrow is optional.)

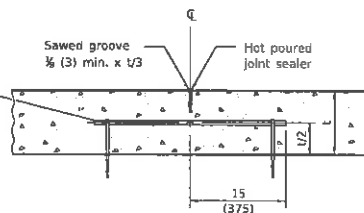
Illinois Department of Transportation	
PASSED	JANUARY 1, 2015
ENGINEER OF OPERATIONS	
APPROVED	JANUARY 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT	

#### TYPICAL PAVEMENT MARKINGS

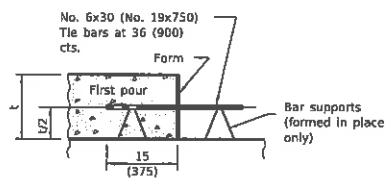
(Sheet 3 of 3)

STANDARD 780001-05

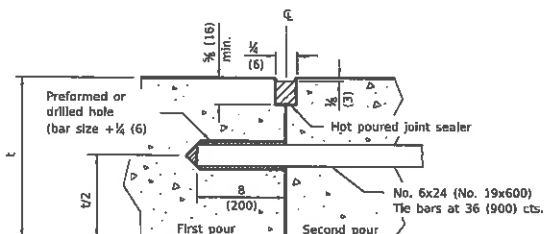
No. 6x30 (No. 19x750)  
Tie bars at 36 (900) cts.  
(shown on support pins)



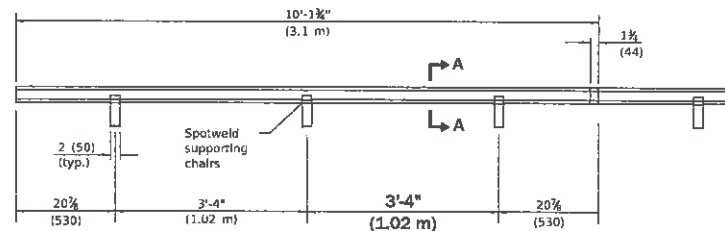
**LONGITUDINAL SAWED JOINT**



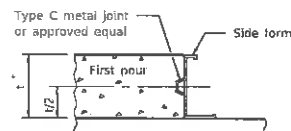
**LONGITUDINAL CONSTRUCTION JOINT**  
(TIE BAR FORMED IN PLACE OR MECHANICALLY INSERTED)



**LONGITUDINAL CONSTRUCTION JOINT**  
(TIE BAR GROUTED IN PLACE)



**TYPE C METAL JOINT**

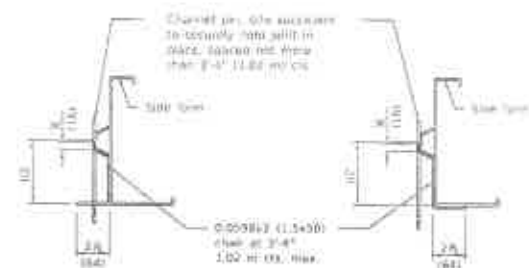


**LONGITUDINAL KEYED JOINT**

\* 8 (203) min. pavement thickness for keyed joints.



**SECTION A-A**



**SUPPORTING CHAIR ALTERNATE**

**SUPPORTING CHAIR ALTERNATE**

**GENERAL NOTES**

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

Illinois Department of Transportation

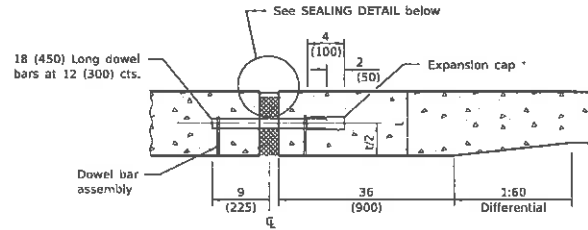
PASSED January 1, 2018

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018

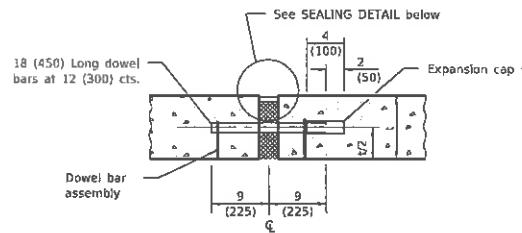
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS	PAVEMENT JOINTS (Sheet 1 of 2)  STANDARD 420001-09
1-1-18	Changed tie bar spacing to 36 (900) cts. Revised DOWEL BAR TABLE.	
1-1-08	Switched units to English (metric).	

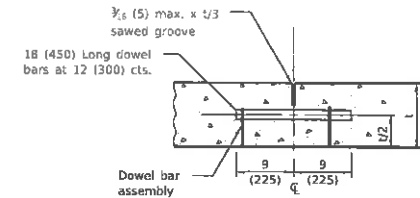


**TRANSVERSE EXPANSION JOINT**  
(FOR PAVEMENTS WITH UNEQUAL THICKNESS)

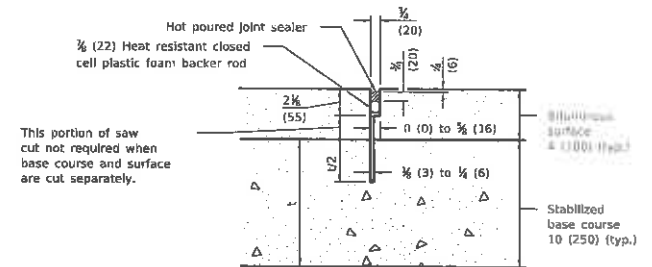
Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.



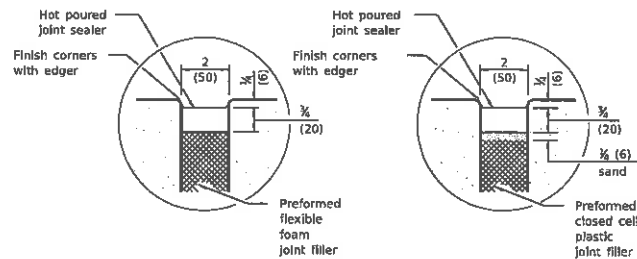
**TRANSVERSE EXPANSION JOINT**  
(FOR PAVEMENTS WITH EQUAL THICKNESS)



**TRANSVERSE CONTRACTION JOINT**



**TRANSVERSE CONTRACTION JOINT**  
(FOR CAM, CFA AND LFA BASE COURSE MIXTURES)



**SEALING DETAIL**

DOWEL BAR TABLE	
PAVEMENT THICKNESS	DOWEL BAR DIAMETER
10 (250) or greater	1 1/2 (38)
8 (200) thru 9.99 (249)	1 1/4 (32)
Less than 8 (200)	1 (25)

Illinois Department of Transportation

PASSED January 1, 2018  
Michael Brand  
ENGINEER OF POLICY AND PROCEDURES

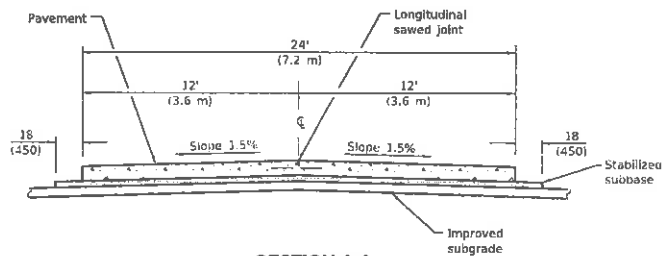
APPROVED January 1, 2018  
Theresa M. Smith  
ENGINEER OF DESIGN AND ENVIRONMENT

16-1-1 CHANGES

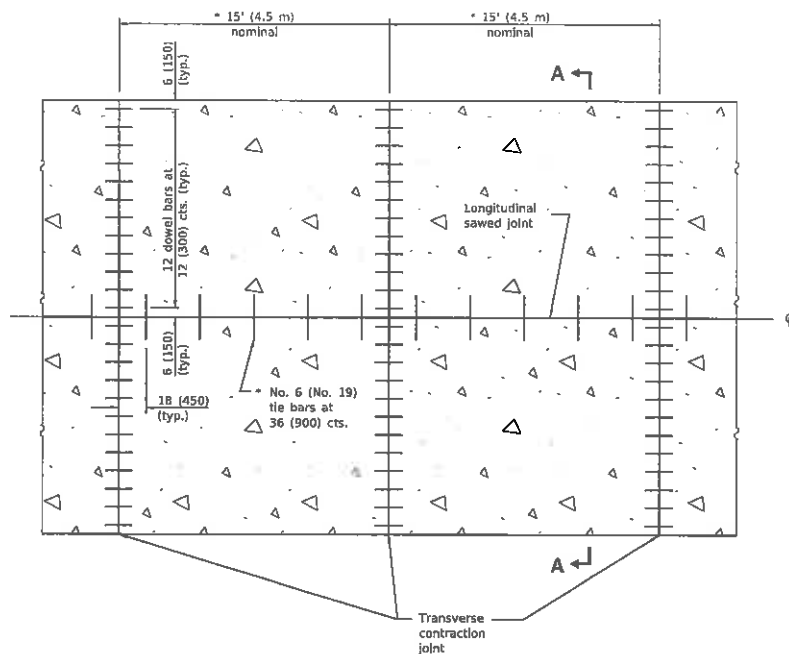
**PAVEMENT JOINTS**

(Sheet 2 of 2)

**STANDARD 420001-09**

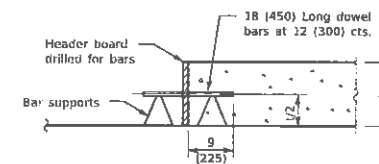


**SECTION A-A**  
(TYPICAL 2-LANE WITH SHOULDERS)

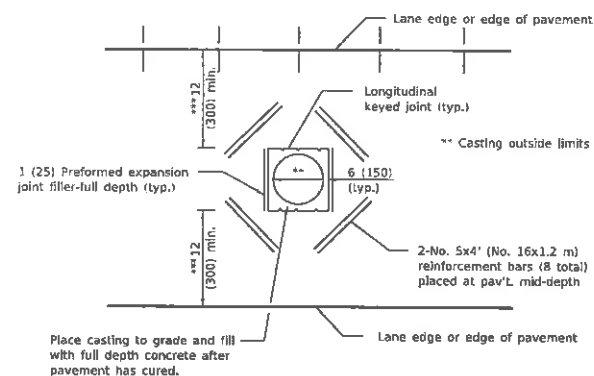


**PAVEMENT PLAN**

\* The 15' (4.5 m) dimension shall be adjusted to 12' (3.6 m) min. to 18' (5.5 m) max. when placed adjacent to existing pcc pavement structure so that the joints are in prolongation. Adjust the tie bar spacing to maintain a clearance of 6 (150) from dowel bars.



**TRANSVERSE CONSTRUCTION JOINT**



\*\*\* When the 12 (300) minimum cannot be achieved, the transverse joints shall be extended to either the longitudinal joint or edge of pavement.

**DETAIL OF ADDED REINFORCEMENT  
FOR PAVEMENT BLOCKS-OUTS**

**GENERAL NOTES**

See Standard 420001 for details of joints not shown.

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

DATE	REVISIONS	24' (7.2 m) JOINTED PCC PAVEMENT
1-1-18	Changed spacing of tie bars to 36 (900).	
1-1-15	Added dimension of tie bars from transverse contraction joints	STANDARD 420101-06

Illinois Department of Transportation

PASSED January 1, 2018

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018

ENGINEERS OF DESIGN AND ENVIRONMENT

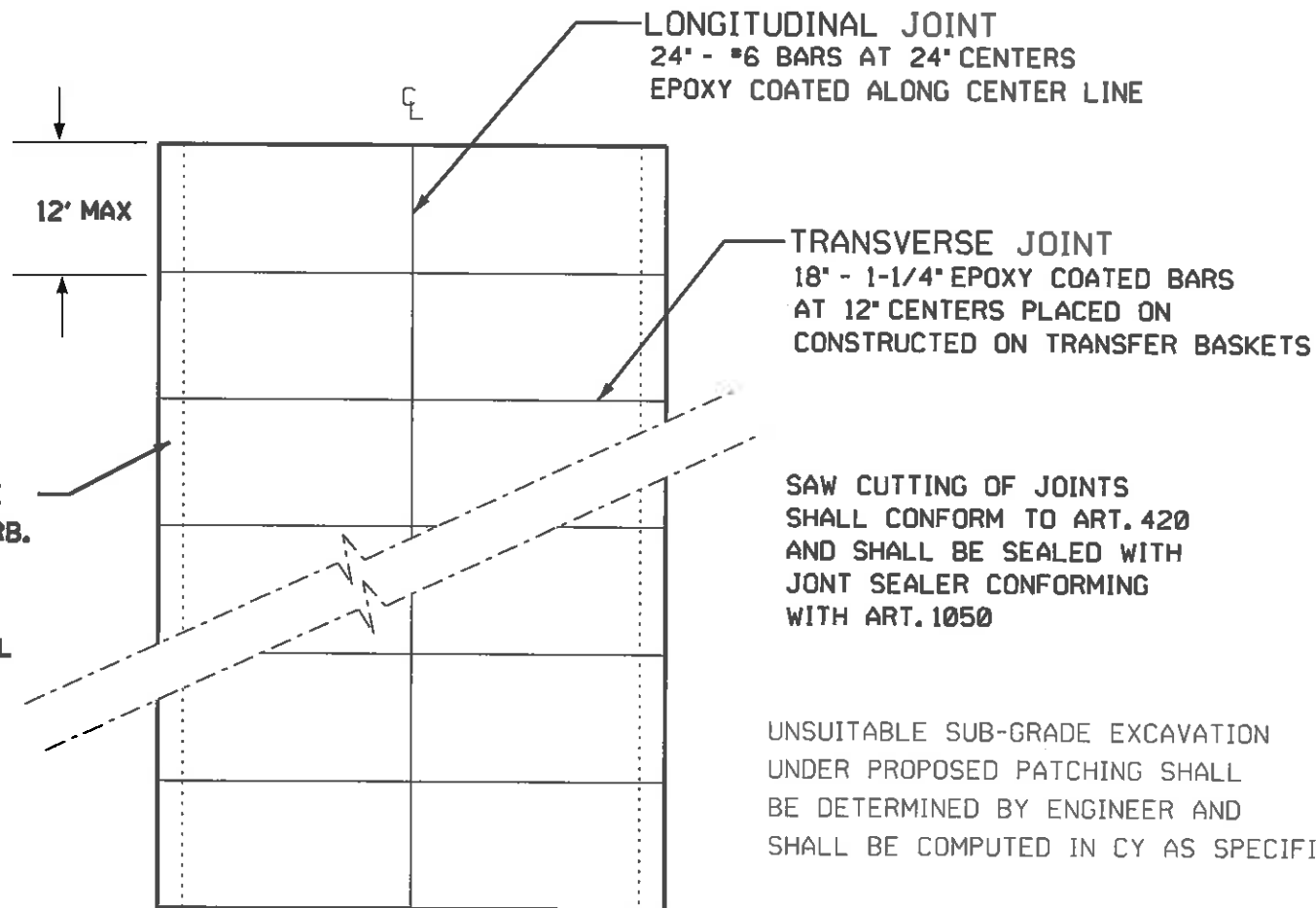
DESIGN

48" x 1"

LOCATIONS:

MEADOWLARK CT.  
BLUEBIRD CT.  
EAGLE CT.

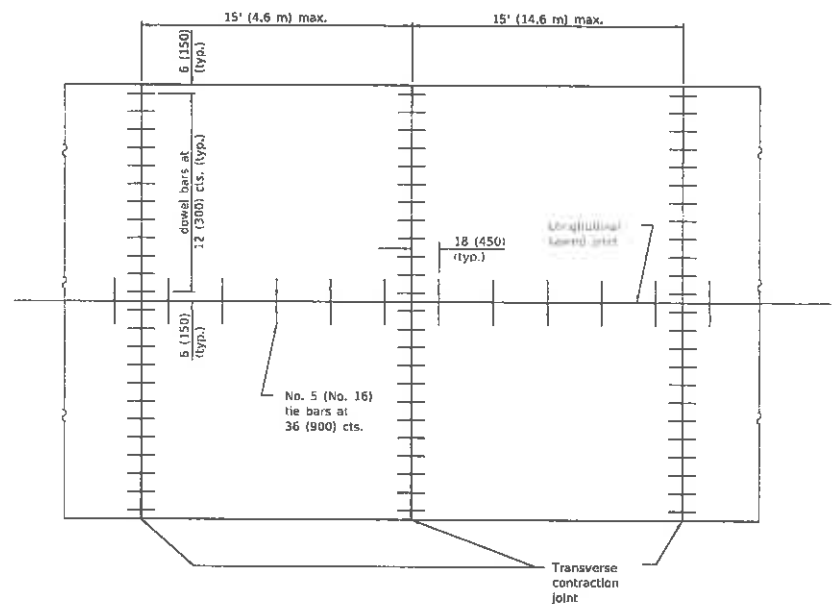
MONOLITHIC M-3 CURB HEAD SHALL BE  
CONSTRUCTED TO MATCH EXISTING CURB.  
NEW MONOLITHIC CURB WILL NOT BE  
MEASURED SEPARATELY FROM PATCH  
BUT SHALL BE CONSIDERED INCIDENTAL  
TO THE SY OF THE OVERALL PATCH  
MEASURED.



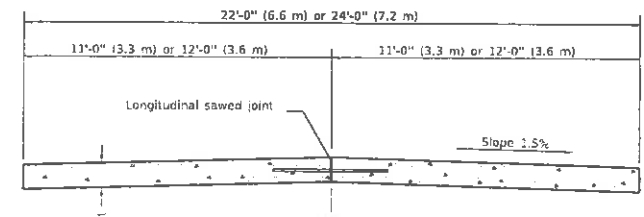
PAVEMENT PATCHING CLASS B, 8-INCH, SPECIAL

VILLAGE OF GURNEE  
SEC. #19-0000-01-GM  
PROJECT # 8384

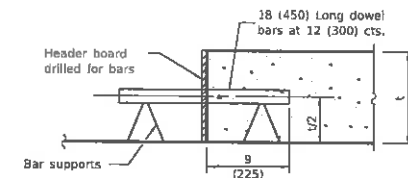




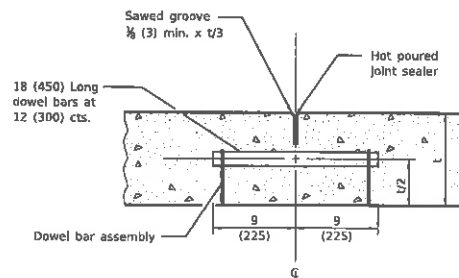
**PLAN OF PAVEMENT**



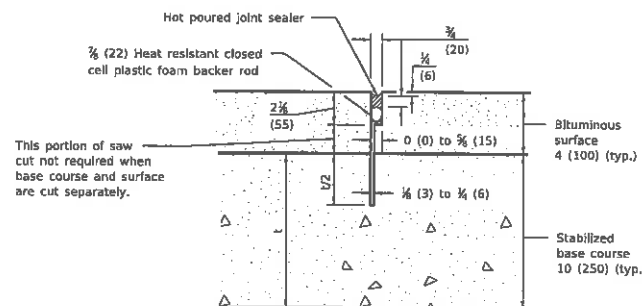
**CROSS SECTION OF PAVEMENT**



**TRANSVERSE CONSTRUCTION JOINT**



**TRANSVERSE CONTRACTION JOINT**



**TRANSVERSE CONTRACTION JOINT**  
(For CAM, CFA and LFA Base Course Mixtures)

**GENERAL NOTES**

See Standard 420001 for details of Transverse Expansion Joints, Longitudinal Sawed Joints and Longitudinal Construction Joints.

Dowel bars are only required for CFA's 8" or 21" Reels and Models having pavement thicknesses of 7" (175) or greater.

S = Pavement thickness (See Typical Cross Section)

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

**DOWEL BAR TABLE**

PAVEMENT THICKNESS	DOWEL BAR DIAMETER
10 (250) or greater	1 1/2 (38)
8 (200) thru 9.99 (249)	1 1/4 (32)
Less than 8 (200)	1 (25)

DATE	REVISIONS
1-1-18	Revised dowel and tie bar sizes. Increased tie bar spacing. Eliminated skewed joint.
1-1-15	Added general note regarding dowel bars.

**PORTLAND CEMENT CONCRETE PAVEMENT (NONREINFORCED)**

**STANDARD B.L.R. 14-12**

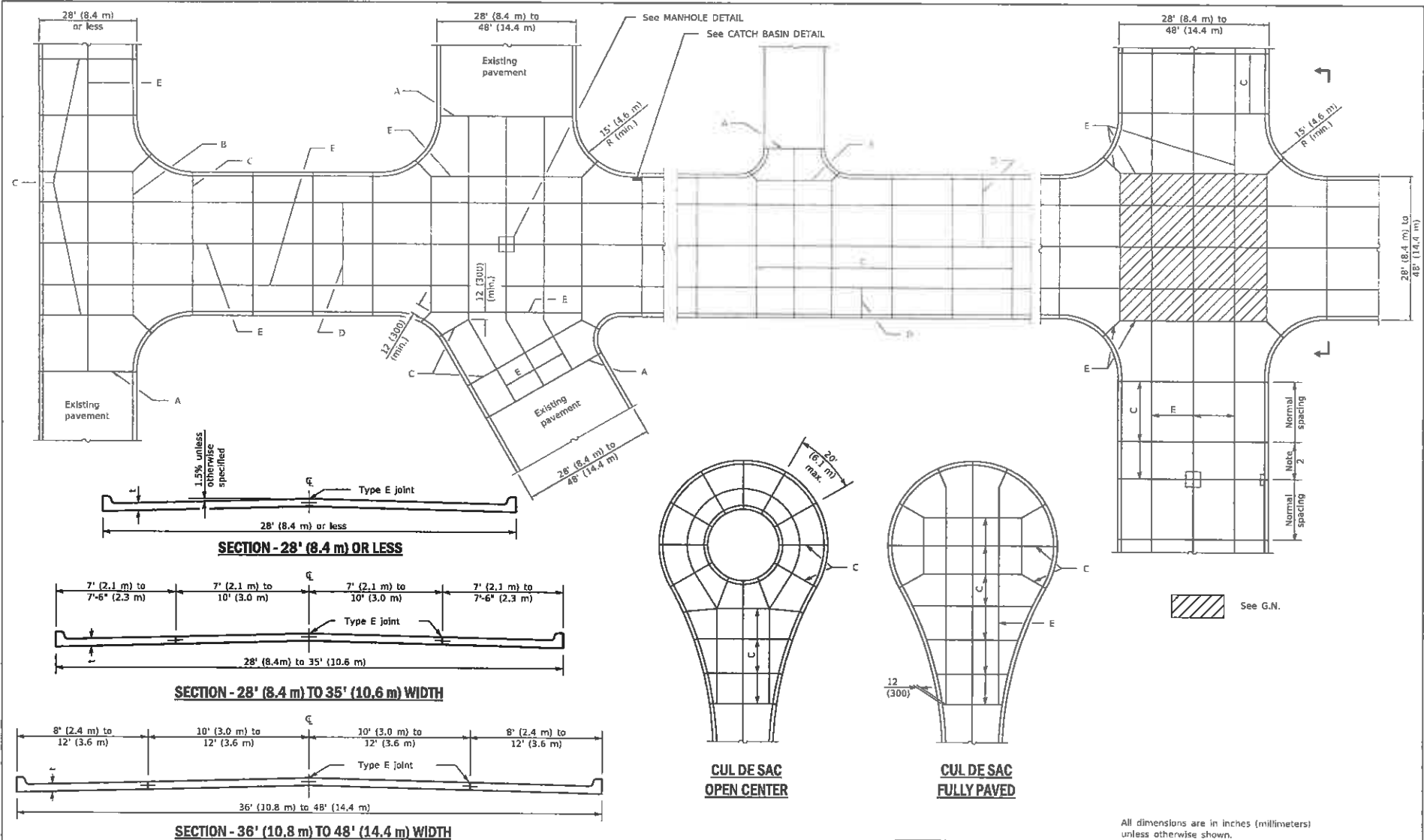
Illinois Department of Transportation

PASSED January 1, 2018

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2018

ENGINEER OF DESIGN AND ENVIRONMENT



Illinois Department of Transportation

APPROVED January 1, 2018

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2018

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

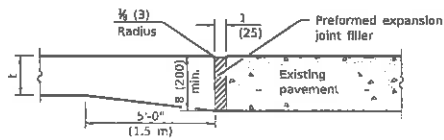
t = See typical cross section on plans for thickness

DATE	REVISIONS
1-1-18	Changed No. 6 (No. 19)
	bars to No. 5 (No. 16)
	bars.
1-1-09	Switched units to English (metric).

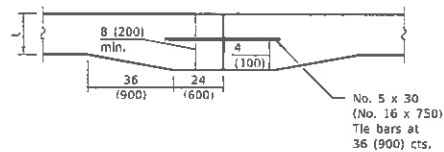
**PCC PAVEMENT SPECIAL (NONREINFORCED)**

(Sheet 1 of 2)

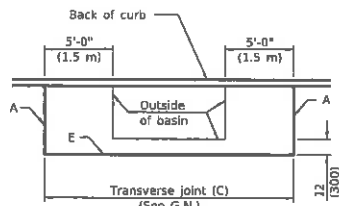
**STANDARD B.L.R. 10-7**



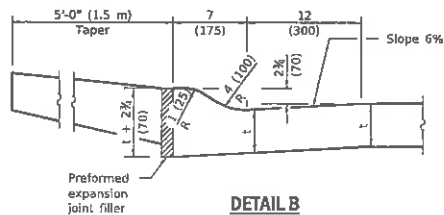
**TYPE A  
EXPANSION JOINT**



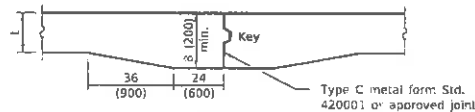
**TYPE D  
TIED TRANSVERSE CONSTRUCTION JOINT**



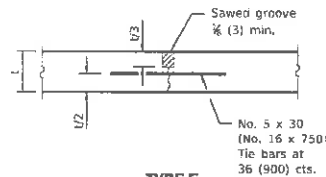
**CATCH BASIN DETAIL**



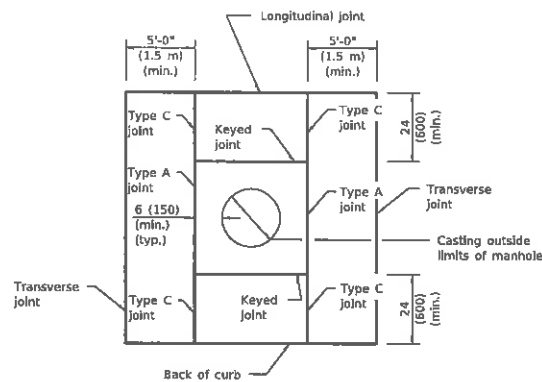
**DETAIL B**



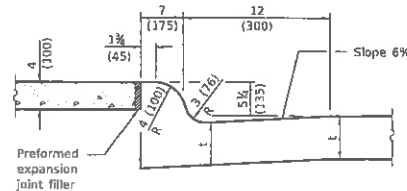
**TYPE B  
KEYED JOINT**



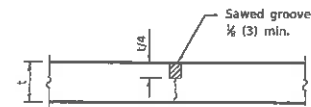
**TYPE E  
SAWED LONGITUDINAL JOINT**



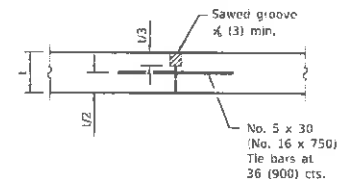
**MANHOLE DETAIL  
Showing joint types**



**DETAIL A**



**TYPE C  
SAWED TRANSVERSE JOINT**



**TYPE E  
LONGITUDINAL CONSTRUCTION JOINT**

### GENERAL NOTES

All catch basins shall be separated from the pavement and curb by boxing out as shown in the detail. Manhole castings within the pavement limits shall be boxed in a like manner except when telescoping type castings are used.

When a joint falls within 5 ft. (1.5 m) of or contacts basins, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall at the corners of the box out.

When specified, roundouts as shown on Standard 420111 shall be used in lieu of the manhole detail shown herein except No. 5 (No. 16) bars shall be used in lieu of No. 6 (No. 19) bars.

All transverse joints must extend through curbs and be continuous across pavement, except tied transverse construction joints. Expansion joints will be required as shown on the plans.

When specified, the pavement structure thickness at intersections shall be increased. This requirement generally will occur when the design traffic through the intersection exceeds the typical design of the pavement structure either side of the intersection.

Joints shall be sawed to a depth of 1/4 for transverse joints and t/3 for longitudinal joints. Saw joints shall be sealed with material meeting the requirements of Section 1050 of the Standard Specifications.

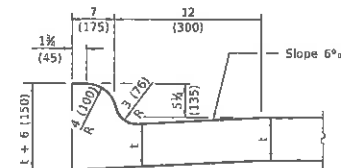
This alternate construction is at the Contractor's option and shall be constructed in accordance with Section 606 of the Standard Specifications. The combination concrete curb and gutter shall be measured in place and the area computed in sq. yards (sq. meters). This work will be paid for at the contract unit price per sq. yards (sq. meters) for portland cement concrete pavement special with integral curb of the thickness specified and shall include all materials and labor.

Transverse joint spacing shall not exceed 15 ft. (4.6 m).

Construct TYPE D tied transverse construction joint when construction joint does not fall at a TYPE C sawed transverse joint.



**COMB. CURB & GUTTER DETAIL  
Alt. const. see G.N.**



**INTEGRAL CURB  
See DETAIL A for crosswalks  
and DETAIL B for driveways.**

## PCC PAVEMENT SPECIAL (NONREINFORCED)

(Sheet 2 of 2)

**STANDARD B.L.R. 10-7**

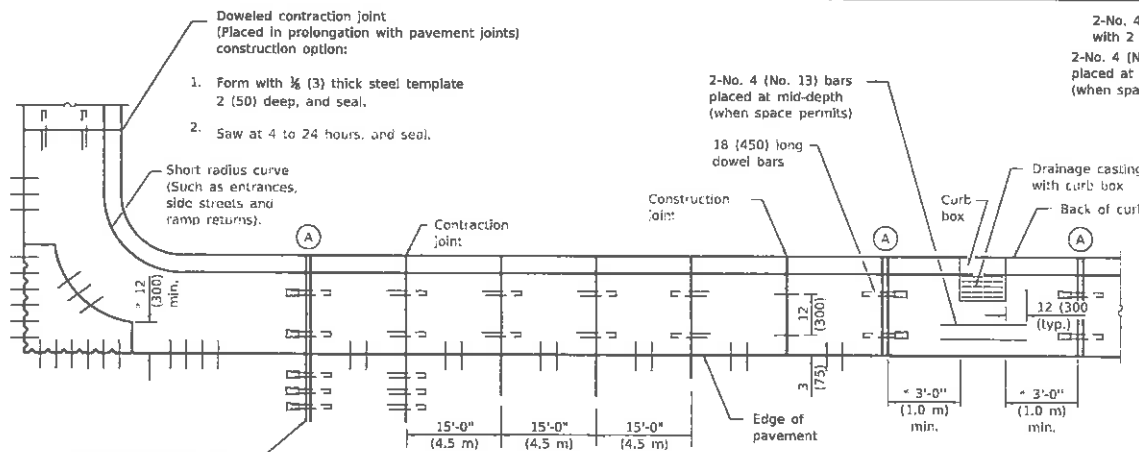
Illinois Department of Transportation

APPROVED January 1, 2018

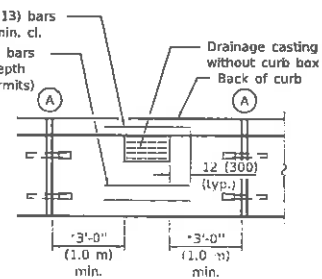
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2018

ENGINEER AT DESIGN AND ENVIRONMENT

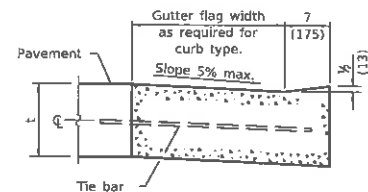


**PLAN**  
**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**



Full depth & width  
1 (25) - thick (min.)  
preformed expansion  
joint filler.

**DETAIL A**  
**EXPANSION JOINT**



**DEPRESSED CURB ADJACENT  
TO CURB RAMP ACCESSIBLE  
TO THE DISABLED**

**GENERAL NOTES**

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Pavement thickness.

Longitudinal joint tie bars shall be No. 5 (No. 16) at 24 (600) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

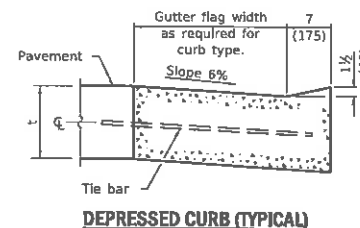
See Standard 606301 for details of corner islands except reference to Standard 606001 does not apply.

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

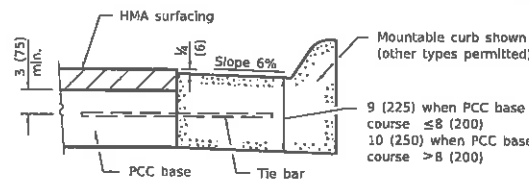
**CONCRETE CURB TYPE B  
AND COMBINATION  
CONCRETE CURB AND GUTTER**

(Sheet 1 of 2)

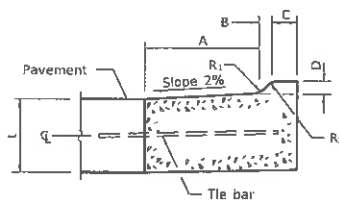
B.L.R. 28



**DEPRESSED CURB (TYPICAL)**

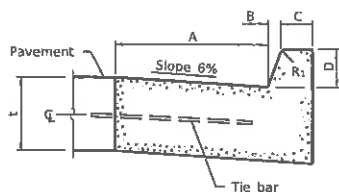


**ADJACENT TO PCC BASE COURSE  
WITH HMA SURFACING**



**M-2.06 (M-5.15) and M-2.12 (M-5.30)**

**BARRIER CURB**



**MOUNTABLE CURB**

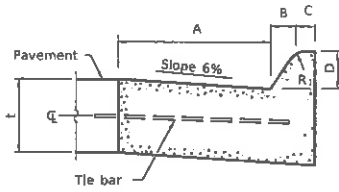


TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R <sub>1</sub>
B-6.06 *	6	1	6	6	1
(B-15.15)	(150)	(25)	(150)	(150)	(25)
B-6.12	12	1	6	6	1
(B-15.3)	(300)	(25)	(150)	(150)	(25)
B-6.18	18	1	6	6	1
(B-15.45)	(450)	(25)	(150)	(150)	(25)
B-6.24	24	1	6	6	1
(B-15.60)	(600)	(25)	(150)	(150)	(25)
B-9.12	12	2	5	9	1
(B-22.30)	(300)	(50)	(125)	(225)	(25)
B-9.18	18	2	5	9	1
(B-22.45)	(450)	(50)	(125)	(225)	(25)
B-9.24	24	2	5	9	1
(B-22.60)	(600)	(50)	(125)	(225)	(25)

\* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB							
TYPE	A	B	C	D	R <sub>1</sub>	R <sub>2</sub>	
M-2.06	6	2	4	2	3	2	
(M-5.15)	(150)	(50)	(100)	(50)	(75)	(50)	
M-2.12	12	2	4	2	3	2	
(M-5.30)	(300)	(50)	(100)	(50)	(75)	(50)	
M-4.06	6	4	3	4	3		
(M-10.15)	(150)	(100)	(75)	(100)	(75)		NA
M-4.12	12	4	3	4	3		
(M-10.30)	(300)	(100)	(75)	(100)	(75)		NA
M-4.18	18	4	3	4	3		
(M-10.45)	(450)	(100)	(75)	(100)	(75)		NA
M-4.24	24	4	3	4	3		
(M-10.60)	(600)	(100)	(75)	(100)	(75)		NA
M-6.06	6	6	2	6	2		
(M-15.15)	(150)	(150)	(50)	(150)	(50)		NA
M-6.12	12	6	2	6	2		
(M-15.30)	(300)	(150)	(50)	(150)	(50)		NA
M-6.18	18	6	2	6	2		
(M-15.45)	(450)	(150)	(50)	(150)	(50)		NA
M-6.24	24	6	2	6	2		
(M-15.60)	(600)	(150)	(50)	(150)	(50)		NA

**DOWEL BAR TABLE**

PAVEMENT THICKNESS	DOWEL BAR DIAMETER
10 (250) or greater	1 1/2 (38)
8 (200) thru 9.99 (249)	1 1/2 (32)
Less than 8 (200)	1 (25)

DATE	REVISIONS
1-1-18	New standard.

Illinois Department of Transportation

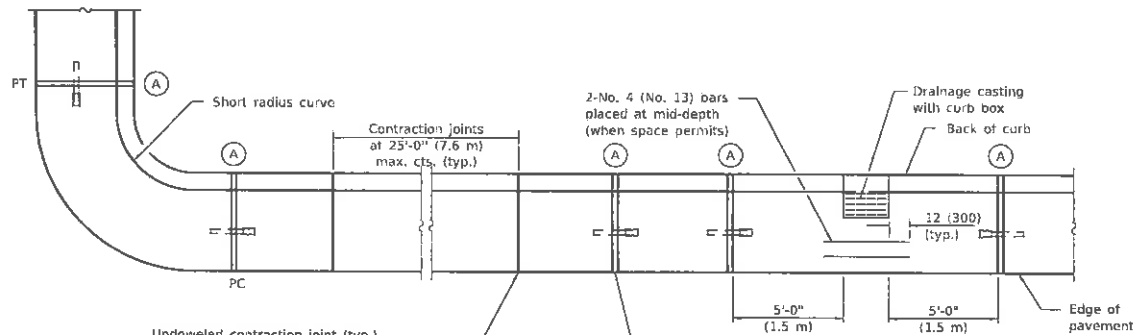
PASSED: January 3, 2018

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED: January 1, 2018

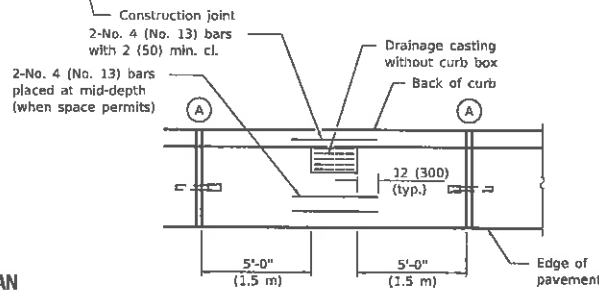
ENGINEERS OF DESIGN AND ENVIRONMENT

ISSUED: 8-1-18

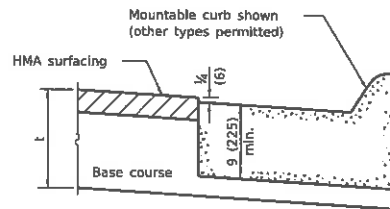


Undoweled contraction joint (typ.) construction options:

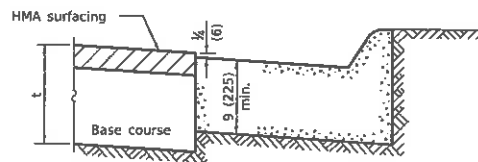
1. Form with  $\frac{1}{8}$  (3) thick steel template 2 (50) deep, and seal.
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert  $\frac{3}{4}$  (20) thick preformed joint filler depth and width.



**PLAN**

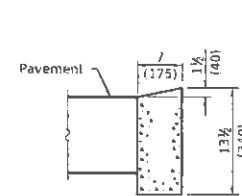


**ON DISTURBED SUBGRADE**

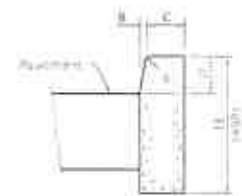


**ON UNDISTURBED SUBGRADE**

**ADJACENT TO FLEXIBLE PAVEMENT**

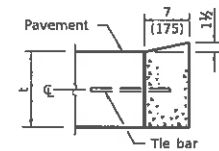


**DEPRESSED CURB**

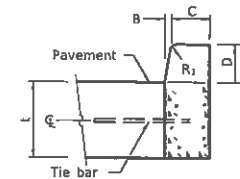


**BARRIER CURB**

**ADJACENT TO FLEXIBLE PAVEMENT**



**DEPRESSED CURB**



**BARRIER CURB**

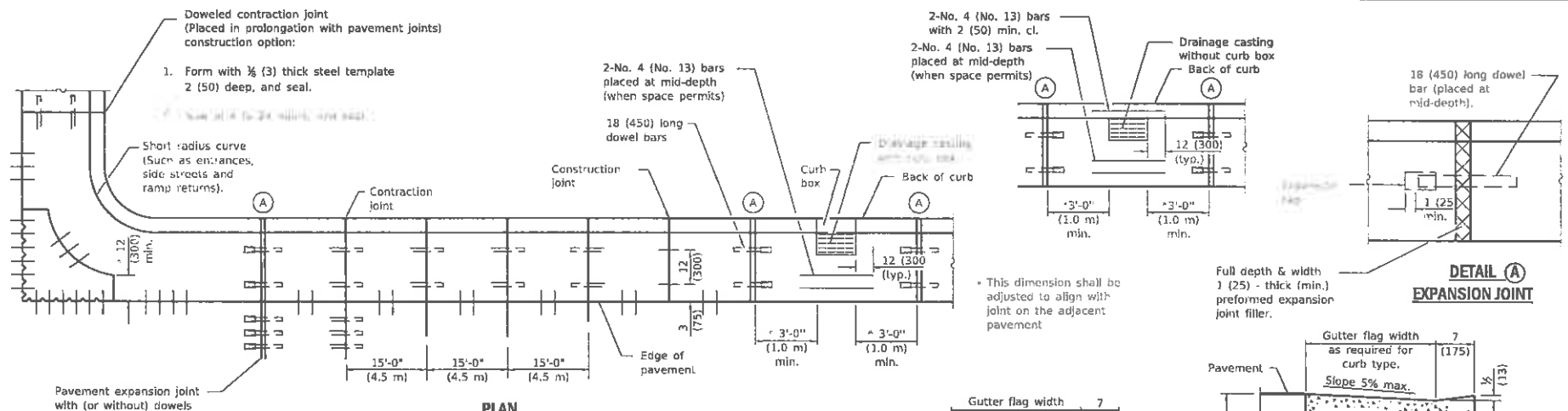
**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**

**CONCRETE CURB TYPE B**

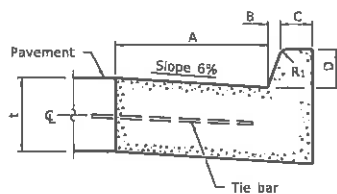
**CONCRETE CURB TYPE B  
AND COMBINATION  
CONCRETE CURB AND GUTTER**  
(Sheet 2 of 2)

**B.L.R. 28**

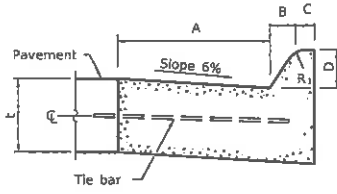
Illinois Department of Transportation	
PASSED January 1, 2018 ENGINEER OF LOCAL ROADS AND STREETS	ISSUED 1-1-18
APPROVED January 1, 2018 ENGINEER OF DESIGN AND ENVIRONMENT	



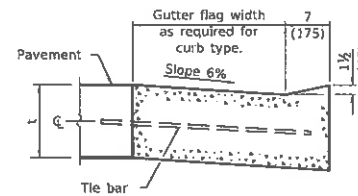
**PLAN**  
**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**



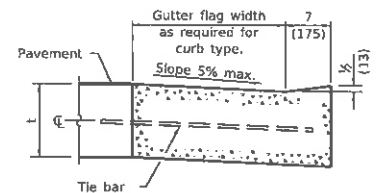
**BARRIER CURB**



**MOUNTABLE CURB**



**DEPRESSED CURB (TYPICAL)**



**DEPRESSED CURB ADJACENT  
TO CURB RAMP ACCESSIBLE  
TO THE DISABLED**

**GENERAL NOTES**

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Pavement thickness.

Longitudinal joint tie bars shall be No. 5 (No. 16) at 24 (600) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

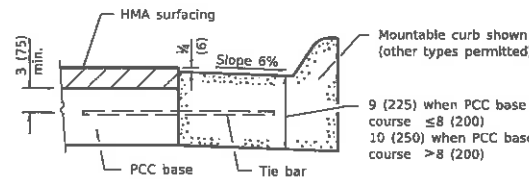
See Standard 606301 for details of corner islands except reference to Standard 606001 does not apply.

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

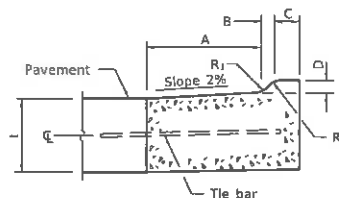
TABLE OF DIMENSIONS BARRIER CURB						
TYPE	A	B	C	D	R <sub>1</sub>	
B-6.06 *	6	1	6	6	1	
(B-15.15)	(150)	(25)	(150)	(150)	(25)	
B-6.12	12	1	6	6	1	
(B-15.3)	(300)	(25)	(150)	(150)	(25)	
B-6.18	18	1	6	6	1	
(B-15.45)	(450)	(25)	(150)	(150)	(25)	
B-6.24	24	1	6	6	1	
(B-15.60)	(600)	(25)	(150)	(150)	(25)	
B-9.12	12	2	5	9	1	
(B-22.30)	(300)	(50)	(125)	(225)	(25)	
B-9.18	18	2	5	9	1	
(B-22.45)	(450)	(50)	(125)	(225)	(25)	
B-9.24	24	2	5	9	1	
(B-22.60)	(600)	(50)	(125)	(225)	(25)	

\* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB							
TYPE	A	B	C	D	R <sub>1</sub>	R <sub>2</sub>	
M-2.06	6	2	4	2	3	2	
(M-5.15)	(150)	(50)	(100)	(50)	(75)	(50)	
M-2.12	12	2	4	2	3	2	
(M-5.30)	(300)	(50)	(100)	(50)	(75)	(50)	
M-4.06	6	4	3	4	3		
(M-10.15)	(150)	(100)	(75)	(100)	(75)	NA	
M-4.12	12	4	3	4	3		
(M-10.30)	(300)	(100)	(75)	(100)	(75)	NA	
M-4.18	18	4	3	4	3		
(M-10.45)	(450)	(100)	(75)	(100)	(75)	NA	
M-4.24	24	4	3	4	3		
(M-10.60)	(600)	(100)	(75)	(100)	(75)	NA	
M-6.06	6	6	2	6	2	NA	
(M-15.15)	(150)	(150)	(50)	(150)	(50)	NA	
M-6.12	12	6	2	6	2	NA	
(M-15.30)	(300)	(150)	(50)	(150)	(50)	NA	
M-6.18	18	6	2	6	2	NA	
(M-15.45)	(450)	(150)	(50)	(150)	(50)	NA	
M-6.24	24	6	2	6	2	NA	
(M-15.60)	(600)	(150)	(50)	(150)	(50)	NA	



**ADJACENT TO PCC BASE COURSE  
WITH HMA SURFACING**



**M-2.06 (M-5.15) and M-2.12 (M-5.30)**

**DOWEL BAR TABLE**

PAVEMENT THICKNESS	DOWEL BAR DIAMETER
10 (250) or greater	1 1/2 (38)
8 (200) thru 9.99 (249)	1 1/4 (32)
Less than 8 (200)	1 (25)

DATE	REVISIONS
1-1-18	New standard.

**CONCRETE CURB TYPE B  
AND COMBINATION  
CONCRETE CURB AND GUTTER**

(Sheet 1 of 2)

B.L.R. 28

Illinois Department of Transportation

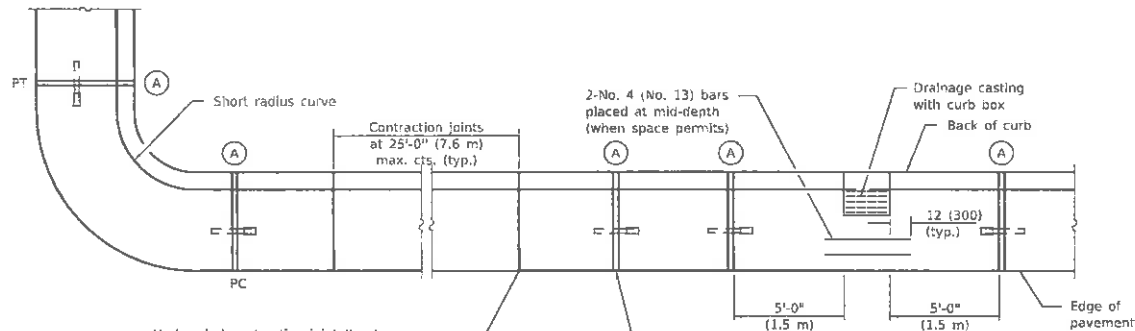
PASSED: *M. B. D.* January 1, 2018

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED: *Thomas M. White* January 1, 2018

ENGINEER OF DESIGN AND ENVIRONMENT

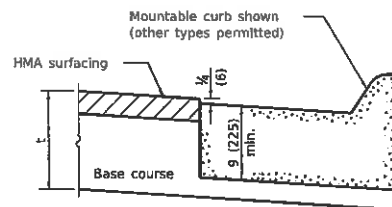
8-1-18 03/05/18



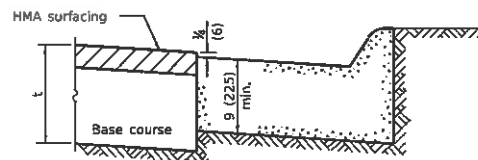
Undoweled contraction joint (typ.) construction options:

1. Form with  $\frac{1}{8}$  (3) thick steel template 2 (50) deep, and seal.
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert  $\frac{1}{8}$  (20) thick preformed joint filler full depth and width.

### PLAN

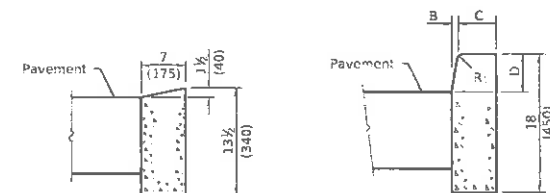


### ON DISTURBED SUBGRADE



### ON UNDISTURBED SUBGRADE

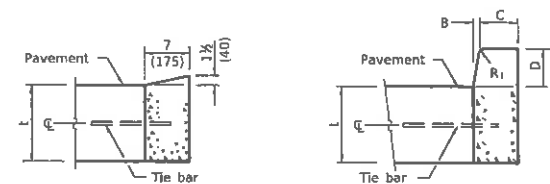
### ADJACENT TO FLEXIBLE PAVEMENT



### DEPRESSED CURB

### BARRIER CURB

### ADJACENT TO FLEXIBLE PAVEMENT



### DEPRESSED CURB

### BARRIER CURB

### ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

### CONCRETE CURB TYPE B

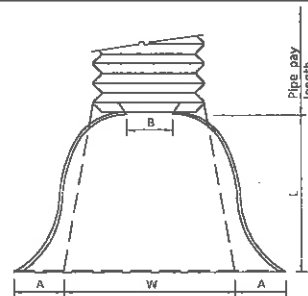
### CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

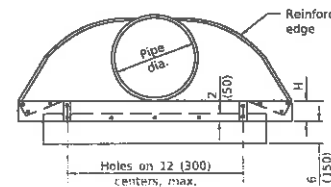
B.L.R. 28

Illinois Department of Transportation	
PASSED	January 1, 2018
ENGINEER OF LOCAL ROADS AND STREETS	
APPROVED	January 1, 2018
ENGINEER OF DESIGN AND ENVIRONMENT	

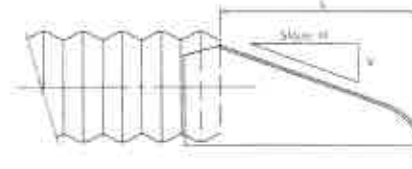
PIPE DIA.	THICKNESS	DIMENSIONS					SLOPE (Approx.) (V:H)	BODY
		A	B	H	L	W		
12	0.064	6	6	6	21	24	1:2 1/2	1 Pc.
(300)	(1.63)	(150)	(150)	(150)	(535)	(610)		
15	0.064	7	8	6	26	30	1:2 1/2	1 Pc.
(375)	(1.63)	(180)	(205)	(150)	(660)	(760)		
18	0.079	8	10	6	31	36	1:2 1/2	1 Pc.
(450)	(2.01)	(205)	(255)	(150)	(785)	(915)		
21	0.079	9	12	6	36	42	1:2 1/2	1 Pc.
(525)	(2.01)	(230)	(305)	(150)	(915)	(1,065 m)		
24	0.079	10	13	6	41	48	1:2 1/2	1 Pc.
(600)	(2.01)	(255)	(330)	(150)	(1,040 m)	(1,220 m)		
30	0.109	12	16	8	51	60	1:2 1/2	1 Pc.
(750)	(2.77)	(305)	(405)	(205)	(1,295 m)	(1,525 m)		
36	0.109	14	19	9	60	72	1:2 1/2	2 Pc.
(900)	(2.77)	(355)	(480)	(230)	(1,525 m)	(1,830 m)		
42	0.079	16	22	11	69	84	1:2 1/2	2 Pc.
(1050)	(2.01)	(405)	(560)	(280)	(1,750 m)	(2,135 m)		
48	0.109	18	27	12	78	90	1:2 1/2	2 Pc.
(1200)	(2.77)	(455)	(685)	(305)	(1,980 m)	(2,285 m)		
54	0.109	18	30	12	84	102	1:2	2 Pc.
(1350)	(2.77)	(455)	(760)	(305)	(2,135 m)	(2,590 m)		
60	0.109	18	33	12	87	114	1:1 1/2	3 Pc.
(1500)	(2.77)	(455)	(840)	(305)	(2,210 m)	(2,895 m)		
66	0.109	18	36	12	87	120	1:1 1/2	3 Pc.
(1650)	(2.77)	(455)	(915)	(305)	(2,210 m)	(3,050 m)		
72	0.138	18	39	12	87	126	1:1 1/2	3 Pc.
(1800)	(3.51)	(455)	(990)	(305)	(2,210 m)	(3,200 m)		
78	0.168	18	42	12	87	132	1:1 1/2	3 Pc.
(1950)	(4.27)	(455)	(1,065 m)	(305)	(2,210 m)	(3,355 m)		
84	0.168	18	45	12	87	138	1:1 1/2	3 Pc.
(2250)	(4.27)	(455)	(1,145 m)	(305)	(2,210 m)	(3,505 m)		



PLAN



END VIEW



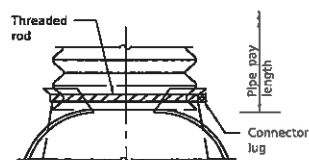
SIDE VIEW

#### NOTES

For 60 (1500) thru 84 (2100) sizes, reinforced edges shall be supplementary extra of 100% angles. The angles shall be 3x3x4/16 (68x68x4) for 60 (1500) thru 72 (1800) diameter and 2x2x3/4 (50x50x4) for 78 (1950) thru 84 (2100) diameter. The angles shall be attached by 1/2 (M12) rivets or bolts.

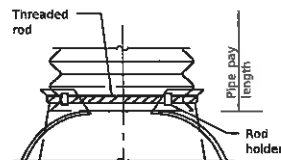
All dimensions are expressed in units of vertical displacement in units of horizontal displacement (V:H).

#### END SECTION



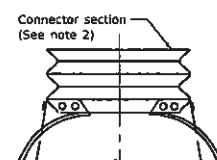
#### TYPE 1

For 12 (300) thru 24 (600) only  
(See Note 1)



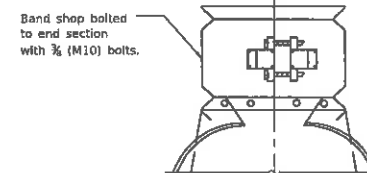
#### TYPE 2

For 30 (750) and 36 (900) only  
(See Note 1)



#### TYPE 3

(See Note 2)



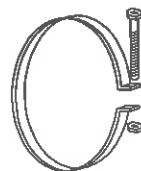
#### TYPE 4

(See Note 3)

#### NOTES

- Types 1 and 2 for pipes with annular ends only.
- Type 3 connection may be used for all pipe sizes and includes 12 (300) of the pipe length. The connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. Stub shall be either 2 1/2 (68) pitch x 1/2 (13) depth or 3 (75) pitch x 1 (25) depth annular corrugated pipe.
- Type 4 connection can be used for all pipe sizes. Coupler shall be 2 1/2 x 1/2 (68x13) dimple, hugger, or annular band of 3x1 (75x25). The dimple, hugger, or annular band may be used with corrugated metal pipes having annular ends. For corrugated metal pipes having helical ends, only the dimple band will be allowed.

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



1 (25) wide, 0.109 (2.77) thick strap with standard 1/2x6 (M12x150) band bolt and nut.

#### ALTERNATE STRAP CONNECTOR

(For Type 1 only)

#### CONNECTIONS OF END SECTIONS

DATE	REVISIONS
1-1-18	Renamed standard.
4-1-16	Revised THICKNESS values in table.

#### METAL FLARED END SECTION FOR PIPE CULVERTS

STANDARD 542401-03

Illinois Department of Transportation

PASSED January 3, 2018

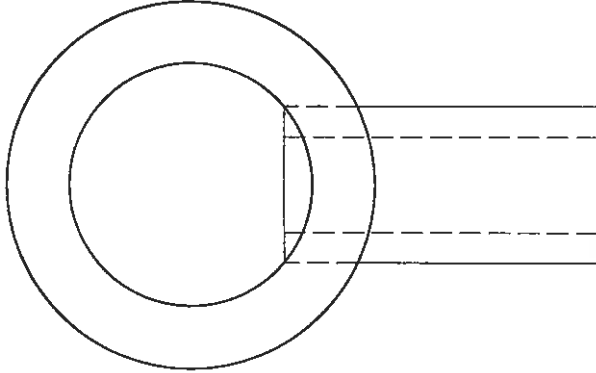
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018

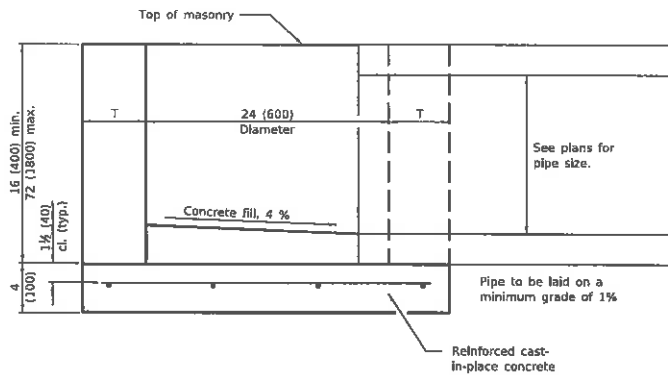
ENGINEER OF DESIGN AND ENVIRONMENT

66-1-1015



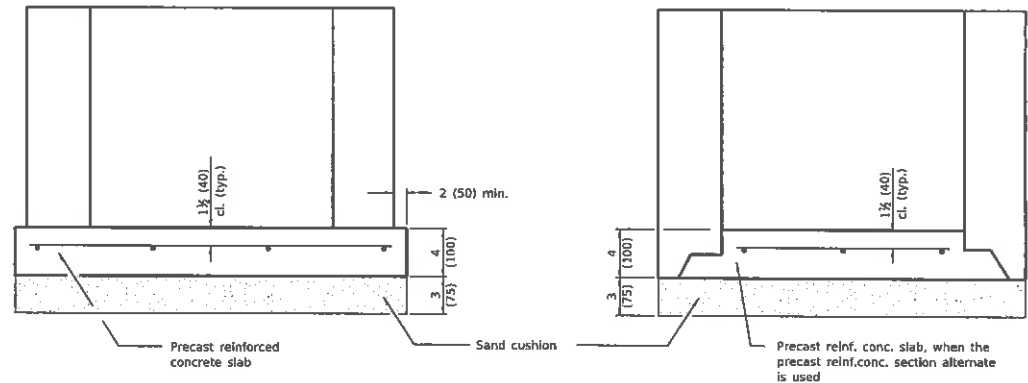


**PLAN**



**ELEVATION**

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)



**ALTERNATE METHODS**

**GENERAL NOTES**

Bottom slabs shall be reinforced with a minimum of 0.24 sq. in./ft. (510 sq. mm/m) in both directions with a maximum spacing of 10 (250).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

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

DATE	REVISIONS	INLET - TYPE A
1-1-14	Increased height to 72 (1800) maximum.	
1-1-11	Detailed reinf. in slabs.	STANDARD 602301-04
	Added max. limit to height.	
	Added general notes.	

Illinois Department of Transportation

PASSED January 1, 2014

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-14