VILLAGE OF VILLA PARK

CONTRACT DOCUMENTS

FOR

2020 STREET IMPROVEMENT PROJECT

April 10, 2020

PREPARED BY

CIVILTECH
Two Pierce Place, Suite 1400
Itasca, IL 60143
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CIVILTECH ENGINEERING, INC.

ADVERTISEMENT FOR BIDS
VILLAGE OF VILLA PARK
Friday, April 10, 2020

PROJECT: 2020 STREET IMPROVEMENT PROJECT
This project consists of various street improvements throughout the Village of Villa Park which includes hot-mix asphalt (HMA) resurfacing and HMA pavement reconstruction. The combined total length of improvements is 7,531 feet (1.43 miles). The pavement resurfacing areas will consist of 2" of HMA surface course and ¾" of polymerized leveling binder. These resurfacing areas will also have pavement patching and spot curb and gutter replacement based on field conditions. The pavement reconstruction areas will be composed of 2" HMA surface course, 4" HMA binder course and 6" aggregate base course supported on a geotechnical fabric. Some unstable subgrade areas may require a combination of aggregate subgrade improvement and geogrid material. Four alleys will be reconstructed with 8" of jointed plain concrete pavement on top of 6" of aggregate base course supported on a geotechnical fabric. In addition, there will be sidewalk replacement at intersections to meet the Public Right-of-Way Accessibility Guidelines (PROWAG), driveway reconstruction, drainage and utility improvements, pavement markings, signing, erosion & sediment control, and landscaping.

BID DEADLINE: TUESDAY, MAY 5, 2020, 11:00 A.M. LOCAL TIME
The Village reserves the right to extend the Bid Deadline from this date and time to accept Bids submitted after the Bid Deadline, as the Village, in its sole discretion, determines is in the best interest of the Village.

NOTICE: Separate proposals for the **2020 STREET IMPROVEMENT PROJECT** will be received electronically by the Village of Villa Park, Illinois, at the website www.questcdn.com until the Bid Deadline. Hard copies of bids will not be accepted. Immediately thereafter, the proposals will be read aloud through the use of Zoom. Notwithstanding the foregoing, the Village reserves the right to defer, postpone, delay, or reschedule the Bid Opening for such time and to such date as the Village, in its sole discretion, determines is in the best interest of the Village.

Proposals shall be submitted in accordance with the Bidding Documents prepared by Civiltech Engineering, Inc., 2 Pierce Place, Suite 1400, Itasca, Illinois 60143.

BIDDER QUALIFICATIONS: Bidders, in submitting a Bid, shall comply with all applicable Federal, State and local laws and requirements; shall provide documentation of that compliance in accordance with the requirements of the Contract Documents or as requested by the Village; and, in submitting a Bid, Bidders affirm that they are qualified under all applicable laws and requirements to do so, and agree to be bound by the determination of the Village as to Bidder's compliance and qualifications.

BID SECURITY: Bid security in the amount of not less than five percent (5%) of the Bid shall accompany each Bid in accordance with the Bidding Documents.

CONTRACT SECURITY: The Bidder to whom a Contract is awarded shall be required to furnish both a Performance Bond and a Payment Bond acceptable to the Village for one-hundred percent (100%) of the Contract Price, in accordance with the requirements of the Contract Documents.

RIGHTS RESERVED: The Village will select the lowest, most responsible bidder. The Village reserves the right to reject any and all Bids, to waive any informalities or technicalities in bidding, and to accept the Bid which best serves the interests of the Village. The Village shall, in its sole discretion, determine what does or does not constitute an informality or technicality, and, in submitting a Bid, Bidder agrees to be bound by that determination.

The Village may make such investigations as it deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Village all such information and data for this purpose as the Village may request. The Village reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Village that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the Work contemplated therein.

WAGE RATES: All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

CONTRACT DOCUMENTS: The Bidding Documents must be obtained electronically at www.questcdn.com for a non-refundable fee of thirty dollars ($30.00). The documents may be downloaded by entering Quest Project Number 6988346 on www.questcdn.com. Due to COVID-19, a hard copy of the documents will not be on file for inspection at the office of the Village of Villa Park Public Works Department. However, a “Not for Bid” PDF version of the documents will be available on the project page on the Village’s website. These versions are for informational purposes only and may not be used for the preparation or submittal of a bid. All bid submissions shall be submitted electronically at www.questcdn.com.

PUBLISHED BY AUTHORITY OF THE VILLAGE OF VILLA PARK, DUPAGE COUNTY, ILLINOIS.

BY: Michael Guerra, P.E.
Public Works Director

RETURN WITH BID

Local Public Agency
Formal Contract Proposal

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

STATE OF ILLINOIS

COUNTY OF DUPAGE

VILLAGE OF VILLA PARK

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

FOR THE IMPROVEMENT OF

PROJECT NAME 2020 STREET IMPROVEMENT PROJECT

SECTION NO. N.A.

TYPES OF FUNDS LOCAL FUNDING

☒ SPECIFICATIONS (required) ☒ PLANS (required)

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

RETURN WITH BID

NOTICE TO BIDDERS

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
Route VARIOUS

Sealed proposals for the improvement described below will be received electronically by the Village of Villa Park at the website www.questcdn.com (Quest Project Number 6988346) (Address) until 11:00 AM (Time) on 05/05/2020 (Date)

Proposals will be publicly read through QuestCDN at the office of Villa Park Public Works Department 11 West Home Avenue, Villa Park, IL 60181 (Address) at 11:00 AM (Time) on 05/05/2020 (Date)

DESCRIPTION OF WORK

Name 2020 Street Improvement Project Length: 7,531 feet (1.43 miles)

Location Various improvements throughout the Village of Villa Park

Proposed Improvement Various improvement methods consisting of HMA resurfacing, HMA & PCC reconstruction, pavement patching, curb and gutter replacement, HMA & PCC driveway reconstruction, and some utility improvements.

1. Plans and proposal forms will be available electronically on QuestCDN at the website www.questcdn.com (Quest Project Number 6988346). Any questions, please call Kevin Mantels, Assistant Village Engineer (Address) (630) 834-8505 (Phone)

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.

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

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

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

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

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

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

9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

RETURN WITH BID

PROPOSAL

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
Route VARIOUS

1. Proposal of _____

for the improvement of the above section by the construction of Pavement resurfacing with HMA surface and polymer leveling binder, pavement reconstruction with HMA surface course, HMA binder course, and aggregate base supported by geotechnical fabric, PCC alley reconstruction, HMA & PCC driveway reconstruction, replacement of curb and gutter, pavement patching, some utility work, and all other work shown in the plans and described in contract documents.

a total distance of 7,531 feet, of which a distance of 7,531 feet, (1.43 miles) are to be improved.

2. The plans for the proposed work are those prepared by Civiltech Engineering, Inc. 2 Pierce Place, Suite 1400, Itasca, IL 60143 and approved by the Village of Villa Park on April 10, 2020

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 the contract time provided by the special provision, "Completion of Project" 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 Treasurer of the Village of Villa Park

The amount of the check is 5% of Bid = _____ (_____).

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 Not Applicable.

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.

SCHEDULE OF PRICES

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section N.A.
Route VARIOUS

Schedule of Prices for BASE BID
(For complete information covering these items, see plans and specifications)

Item No.	Items	Unit	Quantity	Unit Price	Total
1	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	63		
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	158		
3	TEMPORARY FENCE	FOOT	1,600		
4	TREE ROOT PRUNING	EACH	41		
5	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	15		
6	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	41		
7	EARTH EXCAVATION	CU YD	1,479		
8	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	2,169		
9	TRENCH BACKFILL	CU YD	38		
10	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	6,580		
11	SUPPLEMENTAL WATERING	UNIT	30		
12	INLET FILTERS	EACH	36		
13	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	960		
14	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	2,167		
15	AGGREGATE BASE COURSE, TYPE B	CU YD	182		

Item No.	Items	Unit	Quantity	Unit Price	Total
16	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	5,746		
17	BITUMINOUS MATERIALS (TACK COAT)	POUND	7,614		
18	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	394		
19	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	346		
20	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	795		
21	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	1,484		
22	PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED)	SQ YD	2,205		
23	PROTECTIVE COAT	SQ YD	5,462		
24	DETECTABLE WARNINGS	SQ FT	679		
25	PAVEMENT REMOVAL	SQ YD	5,095		
26	DRIVEWAY PAVEMENT REMOVAL	SQ YD	1,595		
27	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2,640		
28	SIDEWALK REMOVAL	SQ FT	16,162		
29	CLASS C PATCHES, 6 INCH	SQ YD	1,569		
30	CLASS D PATCHES, 6 INCH	SQ YD	36		
31	STORM SEWERS, CLASS A, 12"	FOOT	30		
32	STORM SEWERS, RUBBER GASKET, CLASS A, 12"	FOOT	91		
33	STORM SEWERS, CLASS B, 8"	FOOT	16		
34	WATER VALVES 6"	EACH	1		
35	FIRE HYDRANTS TO BE REMOVED	EACH	2		
36	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	2		
37	CATCH BASINS, TYPE A, 4'-DIAMETER	EACH	7		

Item No.	Items	Unit	Quantity	Unit Price	Total
38	CATCH BASINS, TYPE C	EACH	6		
39	MANHOLES, TYPE A, 4'-DIAMETER	EACH	2		
40	INLETS, TYPE A	EACH	4		
41	VALVE VAULTS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
42	FRAMES AND GRATES, TYPE 3	EACH	0	--	0
43	FRAMES AND GRATES, TYPE 11	EACH	26		
44	FRAMES AND LIDS, TYPE 1	EACH	11		
45	NON-SPECIAL WASTE DISPOSAL	CU YD	510		
46	SIGN PANEL - TYPE 1	SQ FT	36		
47	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	5		
48	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	2		
49	TELESCOPING STEEL SIGN SUPPORT	FOOT	192		
50	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	156		
51	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,855		
52	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	30		
53	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	204		
54	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	290		
55	PAINT PAVEMENT MARKING - LINE 4"	FOOT	300		
56	REBUILD EXISTING HANDHOLE	EACH	1		
57	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"	SQ YD	289		
58	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6"	SQ YD	1,798		
59	CONSTRUCTION LAYOUT	L SUM	1		

Item No.	Items	Unit	Quantity	Unit Price	Total
60	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	33		
61	DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED	EACH	16		
62	STORM SEWER (WATER MAIN REQUIREMENTS) 8 INCH	FOOT	0	--	0
63	SAWING P.C. CONCRETE PAVEMENT (FULL DEPTH)	FOOT	3,181		
64	TREE, ACER RUBRUM (RED MAPLE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	4		
65	TREE, GINKGO BILOBA (GINKGO), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	4		
66	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 3" CALIPER, BALLED AND BURLAPPED	EACH	3		
67	TREE, ULMUS JAPONICA X WILSONIANA MORTON (ACCOLADE ELM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	4		
68	TREE, MALUS PRAIRIE ROSE (PRAIRIE ROSE CRABAPPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	3		
69	TOPSOIL FURNISH AND PLACE, 4" (SPECIAL)	SQ YD	2,757		
70	EXPLORATION TRENCH, SPECIAL	FOOT	400		
71	SODDING, SPECIAL	SQ YD	2,757		
72	TEMPORARY ACCESS (DRIVEWAY ENTRANCE)	EACH	54		
73	TEMPORARY ACCESS (ROAD)	EACH	17		
74	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH, SPECIAL	SQ YD	327		
75	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH, SPECIAL	SQ YD	464		
76	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL	SQ FT	15,393		
77	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH, SPECIAL	SQ FT	1,972		
78	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	6,620		
79	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2,788		
80	AGGREGATE SHOULDERS (SPECIAL)	SQ YD	244		

Item No.	Items	Unit	Quantity	Unit Price	Total
81	VALVE BOXES TO BE ADJUSTED (SPECIAL)	EACH	1		
82	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (SPECIAL)	FOOT	56		
83	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12 (SPECIAL)	FOOT	62		
84	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-4.12 (SPECIAL)	FOOT	860		
85	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)	FOOT	3,916		
86	CONCRETE WEDGE	FOOT	743		
87	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		
88	CONNECTION TO EXISTING WATER MAIN (NON PRESSURE)	EACH	3		
89	PRECONSTRUCTION VIDEO TAPING	L SUM	1		
90	AND REPLACE, 8-INCH DIAMETER OR LESS	FOOT	48		
91	SANITARY SEWER REPAIR, REMOVE AND REPLACE, OVER 8-INCH DIAMETER	FOOT	25		
92	SANITARY MANHOLES, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	4		
93	EXISTING PIPE TO BE ADJUSTED	EACH	3		
94	GEOGRID	SQ YD	2,167		
95	REMOVE AND REINSTALL LANDSCAPING ITEM	FOOT	110		
96	WATER USAGE DEDUCTION	T GAL	100	-$8.85	-$885.00
97	WATER USAGE CREDIT	T GAL	100	$8.85	$885.00
98	CONTINGENCY ALLOWANCE	DOLLAR	30,000	$1.00	$30,000.00

Bidder's Proposal for making Entire Improvements:

(TOTAL BASE BID)

THE SELECTION OF LOW BIDDER WILL BE BASED ON EITHER THE BASE BID OR THE BASE & ALTERNATE BID AS DETERMINED BY THE VILLAGE

SCHEDULE OF PRICES

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section N.A.
Route VARIOUS

Schedule of Prices for ALTERNATE BID
(For complete information covering these items, see plans and specifications)

Item No.	Items	Unit	Quantity	Unit Price	Total
1	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	62		
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	132		
3	TEMPORARY FENCE	FOOT	1,120		
4	TREE ROOT PRUNING	EACH	26		
5	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	10		
6	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	39		
7	EARTH EXCAVATION	CU YD	106		
8	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	825		
9	TRENCH BACKFILL	CU YD	5		
10	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	2,735		
11	SUPPLEMENTAL WATERING	UNIT	25		
12	INLET FILTERS	EACH	24		
13	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	659		
14	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	0	--	0
15	AGGREGATE BASE COURSE, TYPE B	CU YD	57		

Item No.	Items	Unit	Quantity	Unit Price	Total
16	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	2,275		
17	BITUMINOUS MATERIALS (TACK COAT)	POUND	4,676		
18	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	262		
19	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	240		
20	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	510		
21	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	949		
22	PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED)	SQ YD	0	--	0
23	PROTECTIVE COAT	SQ YD	1,230		
24	DETECTABLE WARNINGS	SQ FT	503		
25	PAVEMENT REMOVAL	SQ YD	2,512		
26	DRIVEWAY PAVEMENT REMOVAL	SQ YD	411		
27	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,159		
28	SIDEWALK REMOVAL	SQ FT	7,780		
29	CLASS C PATCHES, 6 INCH	SQ YD	501		
30	CLASS D PATCHES, 6 INCH	SQ YD	0	--	0
31	STORM SEWERS, CLASS A, 12"	FOOT	0	--	0
32	STORM SEWERS, RUBBER GASKET, CLASS A, 12"	FOOT	0	--	0
33	STORM SEWERS, CLASS B, 8"	FOOT	0	--	0
34	WATER VALVES 6"	EACH	0	--	0
35	FIRE HYDRANTS TO BE REMOVED	EACH	0	--	0
36	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	0	--	0
37	CATCH BASINS, TYPE A, 4'-DIAMETER	EACH	2		

Item No.	Items	Unit	Quantity	Unit Price	Total
38	CATCH BASINS, TYPE C	EACH	1		
39	MANHOLES, TYPE A, 4'-DIAMETER	EACH	0	--	0
40	INLETS, TYPE A	EACH	0	--	0
41	VALVE VAULTS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	0	--	0
42	FRAMES AND GRATES, TYPE 3	EACH	1		
43	FRAMES AND GRATES, TYPE 11	EACH	17		
44	FRAMES AND LIDS, TYPE 1	EACH	6		
45	NON-SPECIAL WASTE DISPOSAL	CU YD	0	--	0
46	SIGN PANEL - TYPE 1	SQ FT	0	--	0
47	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3		
48	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	3		
49	TELESCOPING STEEL SIGN SUPPORT	FOOT	43		
50	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	0	--	0
51	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	0	--	0
52	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	25		
53	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	0	--	0
54	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	188		
55	PAINT PAVEMENT MARKING - LINE 4"	FOOT	0	--	0
56	REBUILD EXISTING HANDHOLE	EACH	0	--	0
57	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"	SQ YD	229		
58	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6"	SQ YD	0	--	0
59	CONSTRUCTION LAYOUT	L SUM	1		

Item No.	Items	Unit	Quantity	Unit Price	Total
60	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	36		
61	DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED	EACH	3		
62	STORM SEWER (WATER MAIN REQUIREMENTS) 8 INCH	FOOT	7		
63	SAWING P.C. CONCRETE PAVEMENT (FULL DEPTH)	FOOT	2,944		
64	TREE, ACER RUBRUM (RED MAPLE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	3		
65	TREE, GINKGO BILOBA (GINKGO), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	3		
66	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 3" CALIPER, BALLED AND BURLAPPED	EACH	3		
67	TREE, ULMUS JAPONICA X WILSONIANA MORTON (ACCOLADE ELM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	2		
68	TREE, MALUS PRAIRIE ROSE (PRAIRIE ROSE CRABAPPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	6		
69	TOPSOIL FURNISH AND PLACE, 4" (SPECIAL)	SQ YD	2,608		
70	EXPLORATION TRENCH, SPECIAL	FOOT	75		
71	SODDING, SPECIAL	SQ YD	2,608		
72	TEMPORARY ACCESS (DRIVEWAY ENTRANCE)	EACH	10		
73	TEMPORARY ACCESS (ROAD)	EACH	6		
74	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH, SPECIAL	SQ YD	220		
75	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH, SPECIAL	SQ YD	0	--	0
76	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL	SQ FT	8,332		
77	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH, SPECIAL	SQ FT	0	--	0
78	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	5,930		
79	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	0	--	0
80	AGGREGATE SHOULDERS (SPECIAL)	SQ YD	0	--	0

Item No.	Items	Unit	Quantity	Unit Price	Total
81	VALVE BOXES TO BE ADJUSTED (SPECIAL)	EACH	0	--	0
82	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (SPECIAL)	FOOT	0	--	0
83	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12 (SPECIAL)	FOOT	0	--	0
84	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-4.12 (SPECIAL)	FOOT	0	--	0
85	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)	FOOT	2,616		
86	CONCRETE WEDGE	FOOT	865		
87	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		
88	CONNECTION TO EXISTING WATER MAIN (NON PRESSURE)	EACH	0	--	0
89	PRECONSTRUCTION VIDEO TAPING	L SUM	1		
90	AND REPLACE, 8-INCH DIAMETER OR LESS	FOOT	0	--	0
91	SANITARY SEWER REPAIR, REMOVE AND REPLACE, OVER 8-INCH DIAMETER	FOOT	0	--	0
92	SANITARY MANHOLES, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	0	--	0
93	EXISTING PIPE TO BE ADJUSTED	EACH	0	--	0
94	GEOGRID	SQ YD	0	--	0
95	REMOVE AND REINSTALL LANDSCAPING ITEM	FOOT	100		
96	WATER USAGE DEDUCTION	T GAL	100	-$8.85	-$885.00
97	WATER USAGE CREDIT	T GAL	100	$8.85	$885.00
98	CONTINGENCY ALLOWANCE	DOLLAR	0	--	0

Bidder's Proposal for making Entire Improvements:

(TOTAL ALT BID)

THE SELECTION OF LOW BIDDER WILL BE BASED ON EITHER THE BASE BID OR THE BASE & ALTERNATE BID AS DETERMINED BY THE VILLAGE

CONTRACTOR CERTIFICATIONS

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
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 Deliquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.**The bidder or contractor or subcontractor, respectively, certifies that itis 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

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
Route VARIOUS

SIGNATURES

(If an individual)

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed By _____

Business Address _____

Inset Names and Addressed of All Partners _____

(If a corporation)

Corporate Name _____

Signed By _____
President

Business Address _____

Insert Names of Officers

President _____

Secretary _____

Treasurer _____

Attest: _____
Secretary

Local Agency Proposal Bid Bond

Route VARIOUS
County DUPAGE
Local Agency VILLAGE OF VILLA PARK
Section N.A.

RETURN WITH BID

PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

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

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

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

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

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

Principal

_____ (Company Name)

By: _____ (Signature and Title)

_____ (Company Name)

By: _____ (Signature and Title)

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

Surety

_____ (Name of Surety)

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

STATE OF ILLINOIS,
COUNTY OF _____
I. _____, a Notary Public in and for said county,
do hereby certify that _____
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

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

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

My commission expires _____

_____ (Notary Public)

ELECTRONIC BID BOND

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

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

Electronic Bid Bond ID Code

_____ (Company/Bidder Name)

_____ (Signature and Title)

_____ Date

Apprenticeship or Training Program Certification

Return with Bid

Route VARIOUS
County DUPAGE
Local Agency VILLAGE OF VILLA PARK
Section N.A.

All contractors are required to complete the following certification:

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

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

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

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

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

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

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

_____

_____

_____

_____

_____

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

Bidder: _____ By: _____
(Signature)

Address: _____ Title: _____

RETURN WITH BID

Affidavit of Illinois Business Office

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
Route VARIOUS

State of _____)
) ss.
County of _____)

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)

Affidavit of Availability
For the Letting of 05/05/2020

Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless 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 _____

Company _____

(Notary Seal)

Address _____

_____

Local Public Agency
Formal Contract

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

STATE OF ILLINOIS

COUNTY DUPAGE

VILLAGE OF VILLA PARK

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

FOR THE IMPROVEMENT OF

PROJECT NAME 2020 STREET IMPROVEMENT PROJECT

SECTION NO. N.A.

TYPES OF FUNDS LOCAL FUNDING

☒ SPECIFICATIONS (required) ☒ PLANS (required) ☒ CONTRACT BOND (when required)

County DUPAGE
Local Public Agency VILLAGE OF VILLA PARK
Section Number N.A.
Route VARIOUS

1. THIS AGREEMENT, made and concluded the _____ day of _____ (Month and Year),
between the Village of Villa Park
acting by and through its Board of Trustees known as the party of the first part, and
_____ his/their executors, administrators, successors or assigns,
known as the party of the second part.

2. Witnesseth: That for and in consideration of the payments and agreements mentioned in the Proposal hereto attached, to be made and performed by the party of the first part, and according to the terms expressed in the Bond referring to these presents, the party of the second part agrees with said party of the first part at his/their own proper cost and expense to do all the work, furnish all materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of the Engineer under it.

3. And it is also understood and agreed that the LPA Formal Contract Proposal, Special Provisions, Affidavit of Illinois Business Office, Apprenticeship or Training Program Certification, and Contract Bond hereto attached, and the Plans for Route: VARIOUS , in the Village of Villa Park ,
approved by the Village of Villa Park on April 10, 2020 (Date), are essential documents of this
contract and are a part hereof.

4. IN WITNESS WHEREOF, The said parties have executed these presents on the date above mentioned.

Attest: The Village of Villa Park

Village Clerk By _____
Party of the First Part

(Seal)

(If a Corporation)

Corporate Name _____

By _____
President Party of the Second Part

(If a Co-Partnership)

Attest: _____

_____
Secretary

_____
Partners doing Business under the firm name of

_____
Party of the Second Part

(If an individual)

_____
Party of the Second Part

Illinois Department of Transportation

Contract Bond

Route VARIOUS
County DUPAGE
Local Agency VILLAGE OF VILLA PARK
Section N.A.

We , _____

a/an) ☐ Individual ☐ Co-partnership ☐ Corporation organized under the laws of the State of _____ ,

as PRINCIPAL, and _____

_____ as SURETY,

are held and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of

_____ Dollars (_____), lawful money of the United States, well and truly to be paid unto said LA, for the payment of which we bind ourselves, our heirs, executors, administrators, successors, jointly to 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 has entered into a written contract with the LA acting through its awarding authority for the construction of work on the above section, which contract is hereby referred to and made a part hereof, as if written herein at length, and whereby the said Principal has promised and agreed to perform said work in accordance with the terms of said contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work and has further agreed to pay all direct and indirect damages to any person, firm, company or corporation suffered or sustained on account of the performance of such work during the time thereof and until such work is completed and accepted; and has further agreed that this bond shall inure to the benefit of any person, firm, company or corporation to whom any money may be due from the Principal, subcontractor or otherwise for any such labor, materials, apparatus, fixtures or machinery so furnished and that suit may be maintained on such bond by any such person, firm, company or corporation for the recovery of any such money.

NOW THEREFORE, if the said Principal shall well and truly perform said work in accordance with the terms of said contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or machinery furnished to him for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in said contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of such work during the time of the performance thereof and until the said work shall have been accepted, and shall hold the LA and its awarding authority harmless on account of any such damages and shall in all respects fully and faithfully comply with all the provisions, conditions and requirements of said contract, then this obligation to be void; otherwise to remain in full force and effect.

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

PRINCIPAL

_____ (Company Name)

By: _____ (Signature & Title)

Attest: _____ (Signature & Title)

_____ (Company Name)

By: _____ (Signature & Title)

Attest: _____ (Signature & Title)

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

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 or PRINCIPAL)

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

Given under my hand and notarial seal this _____ day of _____ A.D. _____

My commission expires _____ _____ Notary Public **(SEAL)**

SURETY

_____ (Name of Surety)

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

STATE OF ILLINOIS. **(SEAL)**

COUNTY OF _____

I, _____ , a Notary Public in and for said county, do hereby certify that

_____

_____

(Insert names of individuals signing on behalf or SURETY)

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

Given under my hand and notarial seal this _____ day of _____ A.D. _____

My commission expires _____ _____ Notary Public **(SEAL)**

Approved this _____ day of _____ , A.D. _____

Attest:

_____

Village Clerk

Village of Villa Park (Awarding Authority)

_____ (Chairman/Mayor/President)

VILLAGE OF VILLA PARK

CONTRACT DOCUMENTS

FOR

2020 STREET IMPROVEMENT PROJECT

SPECIAL PROVISIONS

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PROJECT SPECIAL PROVISIONS
FOR
2020 STREET IMPROVEMENT PROJECT

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016 (referred to hereinafter as the Standard Specifications); the "Supplemental Specifications and Recurring Special Provisions", adopted January 1, 2020; the latest edition of the "Illinois Manual on Uniform Traffic Control Devices For Streets and Highways" (IMUTCD); and the "Standard Specifications for Water and Sewer Construction in Illinois", 7th Edition, 2014 (hereinafter referred to as the Water and Sewer Specifications). In case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern. Where no conflict exists, the said Specifications shall apply to this Contract as if repeated in their entirety herein.

DEFINITIONS

Contractor. The individual, firm, partnership, joint venture, or corporation contracting with the Village of Villa Park for performance of prescribed work.

Department, Owner or Village. The Village of Villa Park, DuPage County, Illinois.

Engineer. The Resident Engineer who is the authorized representative of the Village of Villa Park in immediate charge of the engineering details of a construction project.

Notice to Proceed. Notice to proceed is defined as one of the following events, whichever occurs first:

a.) 10 calendar days after the Contract has been signed by both parties;
b.) The day a written Notice to Proceed is issued by the Village; or
c.) The day that construction materials or equipment are delivered to the job site.

LOCATION OF PROJECT

The proposed work is officially known as the "2020 Street Improvement Project". The project involves various improvements in multiple locations throughout the Village of Villa Park, County of DuPage, State of Illinois:

Street Improvement	Starting Limit		Ending Limit	
PLYMOUTH	FROM	ARDMORE	TO	VILLA
VERMONT	FROM	ARDMORE	TO	VILLA
PARK	FROM	PRINCETON	TO	ARDMORE
ADDISON ALLEY	FROM	RIDGE	TO	STONE ALLEY
STONE ALLEY	FROM	ADDISON	TO	WISCONSIN

Street Improvement	Starting Limit	Ending Limit
ST. CHARLES ALLEY	FROM HARVARD	TO YALE
PARK ALLEY	FROM PRINCETON	TO ARDMORE

DESCRIPTION OF PROJECT

The scope of work includes a variety of roadway improvement methods ranging from pavement resurfacing to pavement reconstruction. The majority of the roadways are being resurfaced with varying levels of pavement patching and curb and gutter replacement based on field conditions. The remainder of the roadways are being reconstructed with new HMA pavement and curb and gutter.

In general, the work required for the various types of improvements described above are as follows:

- Roadway Pavement Resurfacing – The existing HMA or PCC surface will be removed and a new HMA surface with polymerized leveling binder will be installed. The existing pavement base and curb and gutter will be inspected for any necessary pavement patching and spot repairs of the curb and gutter. Partial reconstruction of HMA & PCC driveway aprons may be required if curb and gutter is replaced in front of them.

- Roadway Pavement Reconstruction – The existing pavement and curb and gutter will be removed. HMA & PCC driveway aprons will be reconstructed. The reconstruction section will be composed of a new combination concrete curb and gutter, Type B-6.12 with 4” of aggregate base course supported on top of geotechnical fabric. The proposed pavement will have 2” of HMA surface course, 4” of HMA binder course, and 6” of aggregate base course supported on top of geotechnical fabric. Undercuts with aggregate subgrade improvement material may be required and will be determined by the Engineer in the field.

- Alley Pavement Reconstruction – The existing alley pavement will be removed. HMA & PCC driveways will be reconstructed. In order to create a smooth transition between the alley and driveways, the reconstruction of driveways will partially encroach onto private property. The proposed alley pavement will be composed of 8” of jointed plain concrete pavement and 6” of aggregate base course supported on top of geotechnical fabric. Undercuts with aggregate subgrade improvement material may be required and will be determined by the Engineer in the field.

Certain streets will need some minor drainage and utility work. Sidewalks at intersections will need to be replaced and re-graded to meet the Public Right-of-Way Accessibility Guidelines (PROWAG) which includes detectable warnings at curb ramps. Further work will include the installation of erosion control measures, landscaping, pavement markings, signing, and all other collateral work performed as shown in the plans and described herein.

GENERAL SPECIAL PROVISIONS

QUALIFICATIONS OF BIDDERS

Bidders will comply with all applicable Federal, State and local laws and requirements, and will further meet the qualifications prescribed in this and other applicable portions of these provisions.

Bidder, in submitting a Bid, certifies that Bidder is in compliance with all applicable Federal, State and local laws and requirements, and that Bidder further meets the qualifications prescribed in this and other applicable portions of these provisions. Engineer's determination as to the compliance and qualifications of the Bidder will be final, and Bidder, in submitting a Bid, agrees to be bound by that determination.

Bidder, in submitting a Bid, certifies that Bidder is in compliance with the following requirements and qualifications. Bidder further certifies that Bidder is able to provide written evidence of Bidder's compliance with the following requirements and qualifications. Bidder shall, upon request by Engineer, submit such written evidence within five (5) calendar days of the Engineer's request, as well as any other written evidence which Engineer may deem necessary for the purpose of evaluating Bidder's qualifications.

(a) Bidder shall be qualified to do business in the State of Illinois.

(b) Bidder shall possess either a valid Federal Employer Tax Identification Number (FEIN) or a valid Social Security Number (SSN).

(c) Bidder shall be able to provide a street address and description of the Bidder's place of business, and the mailing address of the business, if different from the street address.

(d) Bidder shall be able to provide the number of years Bidder has been engaged in the contracting business under the present firm name, and the name of the state where incorporated.

(e) Bidder shall be able to provide a list of the property and equipment available to the Bidder.

(f) Bidder shall be able to provide a financial statement demonstrating that the Bidder has the financial resources to meet all obligations related to the Work.

(g) Bidder shall maintain insurance policies with the coverages required by the Contract, and with the minimum limits of coverage required by the Contract. Bidder shall be able to provide current certificate(s) of insurance for the insurance policies held by Bidder, demonstrating that Bidder holds insurance policies with the coverages required by the contract, and with the minimum limits of coverage required by the Contract.

(h) Bidder shall have constructed a minimum of three (3) projects of a similar nature in the immediate past five (5) years. Bidder shall be able to provide a list of all projects of a similar nature constructed by Bidder in the immediate past five (5) years, which list shall contain the minimum of three (3) such projects, which list shall provide a description and the location(s) of all such projects, and shall contain the Bidder's performance record and references, as well as

the names and current contact information, including addresses and telephone numbers, of persons who acted as owners' representatives for those projects and who have knowledge of those projects, and whom Bidder agrees the Village may contact for the purpose of verifying Bidder's performance and references.

(i) Bidder shall be able to provide a list of three (3) references (name, address and telephone number) with knowledge of the integrity and business practices of the bidder. Such references may not be persons who have been employed by Bidder as employees.

(j) Bidder shall be able to provide a list of projects presently under Contract, the awarded Contract amount of each, the approximate adjusted Contract amount of each (if applicable), and the dollar amount or percent of completion of each.

(k) Bidder shall be able to provide a list of Contracts which have resulted in lawsuits, whether against Bidder as a prime contractor, against Bidder as a subcontractor, or against Bidder as a party in any other capacity; or against subcontractors or suppliers performing work for Bidder or under Contract held by Bidder.

(l) Bidder shall be able to provide a list of Contracts defaulted.

(m) Bidder shall be able to provide a statement indicating whether or not Bidder has ever filed bankruptcy.

(n) Bidder shall be able to provide a list of all officers of the firm, which list shall also indicate those officers who, while in the employ of the firm or in the employ of previous firms, were associated with Contracts which resulted in lawsuits, Contracts defaulted, or firms which filed for bankruptcy.

(o) Bidder shall maintain personnel guaranteed to be employed in the responsible charge of the Work, which personnel possess sufficient technical experience to ensure the satisfactory completion of the Work. Bidder shall be able to provide the names and technical experience of such personnel, as well as statements as to whether the personnel have or have not performed satisfactorily on other contracts of like nature and magnitude or comparable difficulty at similar rate of progress.

(p) Bidder shall be able to provide a list of subcontractors and suppliers anticipated to be employed by Bidder for the purpose of completing the Work, including the firm name, street address and description of place of business; mailing address of business (if different); phone, fax and e-mail contact information of business; name of primary contact; and a list of any projects or contracts for which Bidder currently owes monies to said firm, which list shall include a description of the project or contract, the amount currently due to said firm, the period of time for which those monies have been owed, and the expected date of payment of those monies.

(q) Bidder shall participate in active apprenticeship and training programs approved by and registered with the United States Department of Labor Bureau of Apprenticeship and Training for each of the trades of work contemplated under the Contract. Bidder shall be able to provide evidence of Bidder's participation in such apprenticeship and training programs.

(r) Bidder shall only employ subcontractors who meet the requirements prescribed in this section and other sections of these specifications.

(s) Bidder shall be able to provide such other information as may assist the Village in determining whether the Bidder is adequately prepared to fulfill the Contract.

These requirements and qualifications are not intended to discourage bidding, to make it difficult for qualified Bidders to submit Bids, or to discourage beginning contractors. The purpose of these requirements and qualifications is to allow the Village to obtain sufficient information about Bidder's financial state, available equipment, personnel, and previous work experience so that the Village may mitigate the hazards involved in awarding contracts to parties who may not be qualified to perform the Work as specified.

A copy of Village of Villa Park Ordinance No. 3733, amending the requirements of bidders for construction projects, is provided in Appendix 3.

BID PRICE LIMITATIONS

The bid price for TRAFFIC CONTROL AND PROTECTION shall not exceed 5 percent of the total bid price. If the bid price for TRAFFIC CONTROL AND PROTECTION exceeds 5 percent of the total bid price, the Village may reject the Bid.

The bid price for CONSTRUCTION LAYOUT shall not exceed 2 percent of the total bid price. If the bid price for CONSTRUCTION LAYOUT exceeds 2 percent of the total bid price, the Village may reject the Bid.

The bid price for PRECONSTRUCTION VIDEO TAPING shall not exceed 1 percent of the total bid price. If the bid price for PRECONSTRUCTION VIDEO TAPING exceeds 1 percent of the total bid price, the Village may reject the Bid.

Bidder, in submitting a Bid, certifies that the Bid is in compliance with these requirements. The Village's determination as to whether or not to reject a Bid that does not comply with these requirements will be final, and Bidder, in submitting a Bid, agrees to be bound by that determination.

BID TO REMAIN SUBJECT TO ACCEPTANCE

All bids shall remain subject to acceptance by the Village for a period of 60 calendar days from the date of the bid opening. The Village may extend the acceptance period by up to an additional 60 calendar days upon written notice to all bidders by the Village. The Village may, in its sole discretion, release any bid and return the bid bond prior to the end of the acceptance period.

SUBCONTRACTORS

Add the following paragraph to the end of Article 108.01 of the Standard Specifications:

> "The apparent low Bidder shall submit to the Village within 7 calendar days after the receipt of bids, a list of the names of Bidder's proposed subcontractors and material suppliers along with a description of the work to be performed or the materials to be supplied by each."

COMPLETION OF PROJECT

All work shall be substantially completed and the roadways fully open to traffic as specified with these contract documents, less punch list items, within **100 calendar days** of Notice to Proceed for the Base Bid. Should the Alternate Bid be accepted, an additional 21 calendar days will be added to the Contract.

Punch list items, including Final Inspection per Article 105.13 of the Standard Specifications, are to be completed within 14 calendar days of substantial completion. In the event the Contractor does not complete the work within the specified calendar days allotted by the contract, then Article 108.09 of the Standard Specifications shall apply except that "working days" will be replaced with "calendar days" in the specified article. Liquidated damages will accrue at a per calendar day rate defined by the table in Article 108.09 of the Standard Specifications.

COMPLETION OF PROJECT – INTERIM DEADLINES

In order to minimize the duration a roadway is left unpaved, the Contractor will construct the roadway in a timely manner as defined in this special provision for the various types of improvements:

For roadways to be reconstructed, the Contractor shall install the proposed curb and gutter, aggregate base course, and HMA binder course within the following calendar days:

- Plymouth Street (reconstruction areas) – 21 calendar days
- Vermont Street (reconstruction areas) – 21 calendar days

Under no condition shall Plymouth Street and Vermont Street be construted at the same time. The Contractor wil not be allowed to start work on the other street until the current street is completed up to leveling binder. The purpose of the limitation is to provide vehicles an informal detour route between Ardmore Avenue and Villa Avenue.

For alleys to be reconstructed, the Contractor shall install the proposed aggregate base course and jointed plain concrete pavement within the following calendar days:

- Addison Alley – 14 calendar days
- Stone Alley – 14 calendar days
- St. Charles Alley – 14 calendar days
- Park Alley – 14 calendar days

For roadways to be resurfaced, the Contractor shall perform pavement patching, repair curb and gutter, and install HMA leveling binder within the following calendar days:

- Plymouth Street (resurfacing areas) – 14 calendar days
- Vermont Street (resurfacing areas) – 14 calendar days
- Park Boulevard – 14 calendar days

Due to the Summerfest event being held from June 18-20 on Park Boulevard, the Contractor will not be allowed to start work on Park Boulevard until after June 22, 2020.

The countdown of calendar days for a specific roadway will begin when removal operations begin for that specific roadway. Removal operations for reconstruction areas shall be defined as the removal of pavement and curb and gutter. Removal operations for resurfacing areas shall be defined as the removal of existing pavement surface. The duration of calendar days are specific to each roadway and cannot be combined cumulatively. If the Contractor chooses to begin work on multiple roadways at the same time, then the countdown of calendar days will be initiated for multiple roadways at the same time.

Failure to complete this work within the calendar day durations and timeframes specified above will result in liquidated damages which will accrue at a per calendar day rate as defined by the Special Provision "Completion of Project" described herein.

FINAL INSPECTION

Final inspection shall be in accordance with Article 105.13 of the Standard Specifications, except as modified herein.

Revise the second paragraph of Article 105.13 to read:

"If the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall comply with such instructions within 14 calendar days of receipt of such instructions. The Contractor shall give the Engineer not less than 48 hours notice, in writing, prior to beginning any such corrective work. Upon completion of all corrective work, the Contractor shall give the Engineer notice in writing. Upon receipt of such notice, the Engineer will make another inspection which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Engineer will notify the Contractor in writing of the date of final inspection."

WORKING HOURS

Working hours will be between 7:00 A.M. and 5:00 P.M., Monday through Friday, excluding legal holidays as designated by the Contract.

Contractor will not permit the performance of work outside these working hours without Owner's written consent, which may be given after prior written request to Engineer, except as otherwise required for the safety of persons or the work or property at the site or adjacent thereto, and except as otherwise stated in the contract documents.

If Contractor permits the performance of work outside these working hours, Contractor will compensate Owner for the costs of inspection and other services provided by Engineer. Owner will determine the rates at which such inspection and other services are to be compensated. Owner will determine the interval or intervals at which billing will take place, and may, at Owner's discretion, submit invoices for payment to Contractor, or deduct the costs from any monies due or to become due to the Contractor from Owner.

HOLIDAYS

Revise the list of legal holidays in Article 107.09 of the Standard Specifications to read:

New Year's Day	Thanksgiving Day
Easter	*Thanksgiving Friday*
Memorial Day	*Christmas Eve*
Independence Day	Christmas Day
Labor Day	*New Year's Eve*

SPECIAL EVENTS

Description. Special events are anticipated to take place on Park Boulevard in or near the gazebo and Prairie Path. The Contractor shall accommodate these events at the project site to minimize inconvenience to the public.

The dates of the events will be provided by the Village to the Contractor at the pre-construction meeting. The events are provided for informational purposes only. The events are tentative and all details are subject to change. Additional events may be added. The Village will provide the Contractor with changes to the list as appropriate.

Contractor shall make accommodations for all special events as directed by the Village or by the Engineer. Such accommodations shall include, but not be limited to, cleaning up the project area or a portion of the project area, implementing additional traffic control or safety measures, removing materials or equipment from a particular portion of the project area, ceasing construction operations in a particular portion of the project area, scheduling construction operations around special events, and other accommodations as directed.

Basis of Payment. Compliance with this special provision will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

PUBLIC CONVENIENCE AND SAFETY (D-1)
Effective: May 1, 2012
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

> "If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

> "The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

> "On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

INSURANCE

Insurance and indemnification shall be according to applicable sections of the Standard Specifications, and shall also be according to the "IRMA Contractual Insurance Guidelines", incorporated herein as Appendix 3. If a conflict is determined to exist between the requirements prescribed in the Standard Specifications and the requirements prescribed in the IRMA Contractual Insurance Guidelines, such conflict will be resolved as follows:

a. If a particular type of insurance coverage is required by one standard but not by both, that type of insurance coverage will be required.
b. If the minimum limits of insurance coverage required by one standard differ from those required by the other standard, the higher minimum limits of insurance coverage will prevail.
c. If any other conflicts are determined to exist between the requirements prescribed in the two standards, the stricter of the two requirements will prevail. Owner will make the final determination as to what constitutes a stricter requirement.

MAINTENANCE WARRANTY

The Contractor shall execute and deliver to the Village, before final payment will be issued, a written warranty, in a form satisfactory to the Village, which guarantees that all work is in accordance with the contract and will not be defective. This warranty shall guarantee all work for a period of 1 year from the date of final inspection.

The Contractor shall furnish a warranty bond in an amount equal to 10 percent of the final contract amount, or $150,000, whichever is greater, by a surety satisfactory to the Village to guarantee Contractor's warranty to repair defective work.

If, within the warranty period, the Village determines any work to be defective, a written notice of such deficiency will be sent to the Contractor by certified mail.

The Contractor shall, within 14 calendar days of receipt of the notice of deficiency, and without cost to the Village, correct or repair such defective work, or remove and replace the defective work in accordance with the contract requirements for the item or items in question.

If Contractor desires an extension of time to complete the corrective work, Contractor shall make such request in writing within 10 calendar days of receipt of the notice of deficiency. After the Contractor has filed a request for an extension of time, the Village will notify the Contractor, in writing, whether or not such extension will be approved.

Should the Contractor fail to complete the corrective work within the 14 calendar days or within such extended time as may have been allowed, the Contractor shall be liable and shall pay to the Village the amount shown in the Schedule of Deductions for Each Day of Overrun in Contract Time, not as a penalty but as liquidated damages, for each day of overrun beyond the 14 calendar days or such extended time as may have been allowed

MOBILIZATION

Description. Mobilization shall be performed in accordance with Section 671 of the Standard Specifications, with the following modifications:

Basis of Payment. Mobilization will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

CONSTRUCTION SAFETY AND HEALTH STANDARDS

It is a condition of this contract and shall be made a condition of each subcontract entered into pursuant to this contract that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to their health or safety, as determined under Federal Construction Safety and Health Standards.

PORTABLE TOILET

Description. Contractor shall furnish a portable toilet meeting Federal, State and local health department requirements stocked with lavatory and sanitary supplies at all times. The portable toilet shall be provided at a location approved by the Engineer. The portable toilet shall be maintained in a clean and sanitary condition and shall be emptied as needed.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

MAINTENANCE OF ROADWAYS (D-1)

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

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

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

KEEPING ROADS OPEN TO TRAFFIC

All roads shall remain open to traffic unless otherwise shown on the contract plans. When necessary to close one lane because of construction, the Contractor shall maintain one-way traffic during construction hours with the use of signs and flaggers as shown on the Traffic Control Standards. Two lanes of traffic will be maintained during nights and weekends when no construction activities are being carried on.

RESPONSIBILITY FOR VANDALISM

The Contractor shall be responsible for the protection of all equipment and materials. Any equipment or materials which are stolen, missing, damaged or vandalized shall be the Contractor's responsibility to repair or replace as needed at no additional cost to the contract.

The Contractor shall be responsible for the defacement of any concrete pours before they have set up. Concrete pavement, sidewalk, driveway, or curbing that has been defaced, in the opinion of the Engineer, shall be removed and replaced by the Contractor at Contractor's own expense.

CONCRETE WASHOUT FACILITY

Description. 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.

General. 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 according to this special provision.

The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility (Code 954). 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.

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 the operators 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 outside the right-of-way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the right-of-way. The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

USE OF FIRE HYDRANTS

Revise Article 107.18 of the Standard Specifications to read:

"**107.18 Use of Fire Hydrants.** If Contractor requires water for the completion of construction operations, and desires to obtain water from the Village, the Contractor shall make written application to the Village. If such application is approved by the Village, the Contractor shall obtain water from the fire hydrant located at 100 West Home Avenue, adjacent to the Village of Villa Park Fleet Maintenance Garage. Contractor's use of said hydrant and methods of obtaining water shall be in compliance with all applicable ordinances, rules, and regulations concerning such use. Contractor shall furnish all labor and equipment necessary to make a connection to said hydrant, and to obtain and transport water.

Prior to obtaining water, Contractor shall make written application to the Village for temporary use of a hydrant meter. If the application for temporary use of a hydrant meter is approved, the Contractor shall provide a deposit of three-thousand dollars ($3,000.00) to the Village for the temporary use of said hydrant meter, which deposit will be held by the Village until such time that the meter is returned to the Village by the Contractor in satisfactory condition. Contractor shall use said hydrant meter when obtaining water, and shall comply with all conditions for the use of said meter. Contractor shall return the hydrant meter to the Village within 24 hours of project completion and within 24 hours of any request by the Village that the hydrant meter be returned.

If Contractor makes application for temporary use of a hydrant meter and the application is not approved, Contractor shall make record of the quantity of water obtained, along with the date and time obtained, and shall report such information after each use to the Village of Villa Park Public Works Department, 11 West Home Avenue. If such use takes place outside of the normal working hours of the Public Works Department, Contractor shall report such information immediately upon the commencement of normal working hours.

Contractor shall not use, operate or obtain water from any hydrants other than the hydrant prescribed. Contractor shall not obtain water from the Village for construction operations or activities not under contract with the Village.

If a water main break occurs and the Village determines that the water main break is a result of Contractor's use of a hydrant, the Village may require the Contractor to repair the water main break in accordance with all applicable construction standards and requirements and at no cost to the contract, or may repair the water main break by other means and invoice the Contractor for reimbursement of the Village's costs.

Water usage will be measured according to the Special Provisions WATER USAGE DEDUCTION and WATER USAGE CREDIT."

OPERATION OF WATER DISTRIBUTION FACILITIES

Contractor shall not operate any water distribution facilities, including, but not limited to, valves or hydrants. If Contractor requires the operation of such facilities, Contractor shall provide a minimum of 48 hours notice to the Village and the Village will operate such facilities.

PROTECTION OF EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION

Unless otherwise noted in the contract plans, the existing drainage facilities shall remain in use during the period of construction.

Locations of existing drainage structures and sewers as shown on the contract plans are approximate. Prior to commencement of work, the Contractor, at his own expense, shall determine the exact location of existing structures which are within the proposed construction site.

All drainage structures are to be kept free from any debris resulting from construction operations. All work and materials necessary to prevent accumulation of debris in the drainage structure resulting from construction operations shall be removed at the Contractor's own expense, and no extra compensation will be allowed.

Unless reconstruction or adjustment of an existing manhole, catch basin, or inlet is called for in the contract plans or ordered by the Engineer, the proposed work shall meet the existing elevations of these structures. Should reconstruction or adjustment of a drainage structure be required by the Engineer in the field, the necessary work and payment shall be done in accordance with Section 602 and Article 104.02 respectively, of the Standard Specifications.

Existing frames and grates are to remain unless otherwise noted in the contract plans or as directed by the Engineer. Frames and grates that are missing or damaged prior to construction shall be replaced. The type of replacements frame or grate shall be determined by the Engineer, and replacement and payment for same shall be in accordance with Section 604 and Article 104.02 respectively, of the Standard Specifications unless otherwise noted in the plans or special provisions.

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (D-1)

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

Add the following to Article 603.02 of the Standard Specifications:

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

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

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

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

Revise Article 603.07 of the Standard Specifications to read:

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

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

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

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

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

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

BRACING AND SHEETING

Description. The Contractor, if necessary, shall furnish, place and maintain all bracing and sheeting to safeguard adjacent utilities, as well as the work done under this contract.

Construction Methods. If at any time the method being used by the Contractor for supporting any material, highway or utility structure adjacent to any excavation is not reasonably safe, in the opinion of the Engineer, the Engineer may require and the Contractor shall provide additional bracing and support necessary to furnish the added degree of safety required by the Engineer. The Contractor shall provide such additional bracing and support by any method approved by the Engineer, as he may elect to use, but the taking of such added precautions shall in no way relieve the Contractor of his sole and final responsibility for the safety of lives, work and structures.

Basis of Payment. The cost of such required bracing and sheeting will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will

not be allowed.

EARTHWORK

Description. The Village did a detailed soil investigation and analysis during the design phase of this project to determine the presence of any non-special waste material. The LPC 662 & 663 forms along with pertinent exhibits showing the extent of non-special waste material have been included in Appendix 5. This work shall be performed in accordance with Sections 202 and 669 of the Standard Specifications, with the following modifications:

The Contractor is expected to coordinate with the soil disposal site the soil results found in Appendix 5 prior to any excavation operations. The Contractor is also expected to keep the clean construction demolition debris (CCDD) material separate from the non-special waste material indicated by their locations shown in the soil exhibits found in Appendix 5. The Contractor is not allowed to claim the entire project site as non-special waste disposal just because one sample location was tested and displayed non-special waste material.

The Village will not be responsible for any additional soil disposal costs if the soil disposal site chosen by the Contractor rejects loads due to photoionization readings. Photoionization detector (PID) readings are not acceptable results for determining classification of the excavated material. Should a licensed landfill reject any load, analytical chemical testing shall be performed on the excavated material by an IEPA National Environmental Laboratory Accreditation Program (NELAP) approved laboratory on representative samples obtained in accordance with standard IEPA protocol and frequencies. The analytical chemical testing shall be completed by a qualified, independent testing agency hired and paid for by the Contractor. SW-846 Analytical Laboratory Procedures (USEPA) methods will be used for analysis. If the test results are inconclusive, or when the test results indicate levels that do not exceed the Residential Tier 1 Soil and/or Class One Groundwater Remediation Objectives (SRO & GRO) presented in 35 Illinois Administrative Code 742 (IAC) the removal and disposal of the excavated material shall be classified as EARTH EXCAVATION or REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL as defined in Section 202 of the Standard Specifications and further defined below. The Contractor shall be responsible for transporting this material to a site that will accept the material. No additional compensation will be allowed for this testing, transportation or disposal.

When test results indicate that the materials exceed said SROs and GROs objectives, the material shall be classified as Non-Special Waste. All costs for excavation, testing, transportation and disposal of Non-Special Waste shall be included in the contract unit price for NON-SPECIAL WASTE DISPOSAL.

Disposal operations shall only proceed with the authorization of the Engineer. The Village has the right to require that **all** sampling be performed in the presence of the Engineer or the Village's authorized representative.

Method of Measurement. No adjustment to the awarded contract unit prices for EARTH EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL and NON-SPECIAL WASTE DISPOSAL pay items will be allowed because of changes to quantities based on actual field conditions. At locations where existing pavement removal and excavation is indicated in the plans, or as otherwise directed by the Engineer, it may be necessary to remove underlying unsuitable soils. It is understood and agreed that the actual need for removal of unsuitable material will be determined in the field at the time of construction by the Engineer.

Basis of Payment. Earth excavation will be paid for at the contract unit price per cubic yard for EARTH EXCAVATION. Removal and disposal of unsuitable and/or unstable material will be paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL. The excavation, testing, transportation, and disposal of soil and other materials from an excavation determined to be contaminated as described above and indicated in Appendix 5 will be paid for at the contract unit price per cubic yard for NON-SPECIAL WASTE DISPOSAL. All prices shall include other items of work included under the general heading of Earthwork for which no payment item is included in the contract.

TRENCH BACKFILL AND PIPE BEDDING

Description. All trench backfill and pipe bedding materials furnished under this contract shall be virgin, non-recycled materials.

All trench backfill shall be crushed aggregate of CA-6 gradation. The aggregate material shall be placed in lifts not exceeding 8 in. in depth, loose measurement, and compacted by mechanical means to the satisfaction of the Engineer.

All pipes installed under this contract shall be placed on a bedding of crushed aggregate of CA-7 or CA-11 gradation having a minimum thickness of 4 in. The bedding shall be placed to a minimum of 12 in. above the top of the pipe and fittings and compacted mechanically to the satisfaction of the Engineer. Then the remaining trench will be backfilled with trench backfill material to the subgrade of the pavement, driveway, curb and gutter, sidewalk, or any other paved surface.

Basis of Payment. The cost of furnishing and installing pipe bedding materials will not be paid for separately but shall be included in the cost of items to which this work pertains. Trench backfill will be paid for according to Article 208.04 of the Standard Specifications.

FRICTION AGGREGATE (D-1)

Effective: January 1, 2011
Revised: April 29, 2016

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

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

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

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA Low ESAL	Stabilized Subbase or Shoulders	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[1/] Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	Allowed Alone or in Combination [5/ 6/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete[3/]
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	Allowed Alone or in Combination [5/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	Allowed Alone or in Combination [5/]: Crushed Gravel Carbonate Crushed Stone (other than Limestone)[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
		Other Combinations Allowed:

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td rowspan="4"></td><td rowspan="4"></td><td>Up to...</td><td>With...</td></tr>
<tr><td>25% Limestone</td><td>Dolomite</td></tr>
<tr><td>50% Limestone</td><td>Any Mixture D aggregate other than Dolomite</td></tr>
<tr><td>75% Limestone</td><td>Crushed Slag (ACBF) or Crushed Sandstone</td></tr>
<tr><td rowspan="6">HMA
High ESAL</td><td rowspan="6">E Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag

No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed:</u></td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Dolomite[2/]</td><td>Any Mixture E aggregate</td></tr>
<tr><td>75% Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
<tr><td>75% Crushed Gravel[2/] or Crushed Concrete[3/]</td><td>Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">F Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed</u>:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td colspan="2"></td></tr>
</table>

Use	Mixture	Aggregates Allowed	
		50% Crushed Gravel[2/], Crushed Concrete[3/], or Dolomite[2/]	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as leveling binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

HMA MIXTURE DESIGN REQUIREMENTS (D-1)
Effective: January 1, 2013
Revised: April 1, 2016

1) Design Composition and Volumetric Requirements

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)
SMA-12.5	2 (50)
IL-19.0, IL-19.0L	2 1/4 (57)"

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 1/ CA 16, CA 13 3/
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 1/ CA 16
SMA 2/	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13 3/, CA14 or CA16 CA16, CA 13 3/

1/ CA 16 or CA 13 may be blended with the gradations listed.
2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.
3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA) 1/; HMA Shoulders 2/

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"**1030.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]										
Sieve Size	IL-19.0 mm		SMA [4/] IL-12.5 mm		SMA [4/] IL-9.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)										
1 in. (25 mm)		100								
3/4 in. (19 mm)	90	100		100						
1/2 in. (12.5 mm)	75	89	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 [5/]	16	32 [5/]	34 [6/]	52 [2/]	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 [3/]	7.5	9.5 [3/]	4	6	7	9 [3/]
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ The maximum percent passing the #635 (20 μm) sieve shall be ≤ 3 percent.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

VOLUMETRIC REQUIREMENTS High ESAL				
	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
Ndesign	IL-19.0	IL-9.5	IL-4.75[1/]	
50	13.5	15.0	18.5	65 – 78 [2/]
70				65 - 75
90				

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements SMA [1/]			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 [4/]	3.5	17.0 [2/] 16.0 [3/]	75 - 83

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ Blending of different types of aggregate will not be permitted.
For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

2) Design Verification and Production

Revise Article 1030.04 (d) of the Standard Specifications to read:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1)Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions. For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise first paragraph of Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

"The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.
If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's G_{mb}."

Basis of Payment.

Replace the fourth paragraph of Article 406.14 of the Standard Specifications with the following:

"Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified."

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)
Effective: November 1, 2012
Revise: April 1, 2017

Revise Section 1031 of the Standard Specifications to read:

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

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

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

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

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

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

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

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc…).

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

the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 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, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

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

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

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

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

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

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

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

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during

processing or after stockpiling. It shall also be sampled during HMA production.

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

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

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

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

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

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

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

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

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

1031.04 Evaluation of Tests. Evaluation of 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)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.3 %
G_{mm}	± 0.03 1/

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

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

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

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the 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	
% Passing:1/	FRAP	RAS
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_{mm}	0.030	

1/ Based on washed extraction.

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

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

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for 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, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

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

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

Class C quality coarse aggregate.

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

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

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant 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 Bureau of Materials and Physical Research 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 1/ 2/ 4/	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/
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. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

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

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

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

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

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

(1) Dryer Drum Plants.

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

b. HMA mix number assigned by the Department.

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

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

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

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

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

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

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

j. Accumulated mixture tonnage.

k. Dust Removed (accumulated to the nearest 0.1 ton (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 Bureau of Materials and Physical Research 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 µm) sieve shall not apply. The sample for the RAP material shall be air dried to constant weight prior to being tested for gradation."

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)
Effective: June 26, 2006
Revised: April 1, 2016

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, *a* 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μm)	95 ± 5
No. 50 (300 μm)	> 20

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 5) ……..…..1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 5. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

FRAMES, GRATES, AND LIDS

Frames, grates, lids and all other castings furnished under this contract shall be in accordance with Section 602 and Section 604 of the Standard Specifications, except as modified herein.

Castings shall conform to ASTM A48 Class 30. Castings shall be free of cracks, holes, swells, cold shuts, and patches. Castings shall not be coated or painted.

Frames, grates, lids and other castings shall be furnished in accordance with the following:

Type 1 frames and closed lids shall be Neenah R-1713 self-sealing or approved equal.

Type 1 frames and open lids shall be Neenah R-1713 or approved equal.

Type 11 frames and grates located in barrier curb and gutter shall be Neenah R-3281-A with curb box or approved equal.

Type 11 frames and grates located in depressed curb and gutter shall be Neenah R-3281-A with depressed curb grate or approved equal.

All other castings not specified above shall be as shown on the plans or as directed by the Engineer. If any of the castings specified are not compatible in the field due to frame height or other constraints, the Contractor shall propose an alternate casting to the Engineer for approval and shall furnish the alternate casting if approved.

Frames, grates, lids and other castings located within curb ramps or crosswalks shall be substituted with ADA compliant castings.

All closed lid castings furnished under this contract shall be self-sealing, gasketed, watertight, and shall have machined bearing surfaces and concealed pick holes. The top surface of all closed lids shall be embossed with the words “VILLAGE OF VILLA PARK”. The top surface of closed lids shall also be embossed with the word “SANITARY”, “STORM”, or “WATER” as appropriate.

Enviro-curb logos on curb boxes for Type 11 frames and grates shall have the words “DUMP NO WASTE” and “DRAINS TO RIVER” or “DRAINS TO WATERWAY” cast into the top of all curb boxes.

This work will not be paid for separately but shall be included in the cost of all pay items that include the furnishing of frames, grates, lids, or other castings.

ADJUSTING RINGS

All drainage and utility structures which are constructed, reconstructed, or adjusted as a part of this contract shall have adjusting rings installed between the topmost section of the structure and the casting.

Each structure shall be fitted with a minimum of one adjusting ring and a maximum of two adjusting rings. The topmost adjusting ring on each structure shall be rubber. The second adjusting ring on each structure, if needed, shall be precast concrete with steel reinforcement. The total height of all adjusting rings on a single structure shall be a minimum of 2 in. and a maximum of 12 in.

The mating faces of adjusting rings shall be smooth, parallel, and free of cracks, chips, spalling, or casting irregularities. Rubber mastic shall be installed between each joint.

Adjusting rings will not be paid for separately but shall be included in the cost of the items to which this work pertains.

SALVAGE AND DISPOSAL OF EXISTING MATERIALS

Existing manufactured materials which are removed and are not to be reused, including, but not limited to, frames, grates, lids, castings, sign posts, sign panels, fire hydrants, valves, stops, and fittings, shall remain the property of the Village unless the Engineer waives this requirement as specified herein.

Existing manufactured materials which are removed and are not to be reused will be inspected by the Engineer. Materials which are determined by the Engineer to be in satisfactory condition shall remain the property of the Village and shall be delivered by the Contractor to the Village of Villa Park Public Works Department yard located at 51 South Ardmore Avenue in Villa Park. Delivery shall be made during the normal working hours of the Village of Villa Park Public Works Department and the Contractor shall coordinate the day, time, and other details of delivery with the Village.

Materials which are determined by the Engineer to be in unsatisfactory condition shall become the property of the Contractor and shall be removed from the site by the end of the workday and properly disposed of by the Contractor.

The delivery or disposal of materials will not be paid for separately but shall be included in the cost of all items that include removal of existing materials.

DATE OF MANUFACTURE

All manufactured materials furnished under this contract, including, but not limited to, frames, grates, lids, castings, fire hydrants, pipe, drainage and utility structures, valves, stops, and fittings, shall have been manufactured no earlier than January 1 of the calendar year in which they are to be installed.

DROP HAMMERS

The use of drop hammers or similar equipment will not be permitted.

TRAFFIC CONTROL PLAN

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

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

STANDARDS:

701011-04 Off-Rd Moving Operations, 2L, 2W, Day Only
701301-04 Lane Closure, 2L, 2W, Short Time Operations
701311-03 Lane Closure, 2L, 2W, Moving Operations - Day Only
701501-06 Urban Lane Closure, 2L, 2W, Undivided
701801-06 Sidewalk, Corner or Crosswalk Closure
701901-08 Traffic Control Devices

DETAILS:

Traffic Control and Protection for Side Roads, Intersections, and Driveways (TC-10)
District One Typical Pavement Markings (TC-13)

SPECIAL PROVISIONS:

LRS 3 – Work Zone Traffic Control Surveillance
"Public Convenience and Safety"
"Maintenance of Roadways"
"Keeping Roads Open to Traffic"

PAY ITEM SPECIAL PROVISIONS

PAY ITEM #4 – TREE ROOT PRUNING

Description. This work shall be performed in accordance with Section 201 of the Standard Specifications, with the following modifications:

This work shall consist of pruning tree root structures using disc blade trenching equipment, trench backfilling and mulching. Pruning will be required where construction activities will encroach upon critical root zone areas as designated by the Engineer.

The trench width for root pruning shall not exceed 6". Root pruning shall be to a depth of not less than 18". All pruning operations shall be completed prior to beginning any work which would disturb the root zone. The trench shall be backfilled and loosely compacted. Immediately following the completion of root pruning activities, Contractor shall erect protective fencing around those trees designated by the Engineer, so as to enclose the remainder of the critical root zone as shown in the construction details.

Method of Measurement. This work shall also include all fertilizer nutrients and supplemental watering described in Article 201.06. These items will not be measured for payment separately but shall be considered as included in the cost of TREE ROOT PRUNING.

Basis of Payment. This work will be paid for at the contract unit price per each for TREE ROOT PRUNING.

PAY ITEMS #5 & #6 – TREE PRUNING

Description. This work shall be performed in accordance with Section 201 of the Standard Specifications and ANSI A300 (Part 1), with the following modifications:

All tree pruning shall be performed by a professional arborist. Branch pruning will be allowed outside the dormant period.

Basis of Payment. This work will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) or TREE PRUNING (OVER 10 INCH DIAMETER).

PAY ITEM #12 – INLET FILTERS

Description. This work shall be performed in accordance with Section 280 of the Standard Specifications, with the following modifications:

Inlet filters shall consist of metal frames with attached fabric bags. Contractor shall furnish inlet filters of appropriate sizes and shapes necessary to accommodate all different types of drainage structures encountered. The use of filter fabric without a frame will not be an acceptable material for inlet filters and will be rejected.

Contractor shall inspect and clean all inlet filters weekly, after every rainfall, and additionally as needed. Maintenance and cleaning of inlet filters will not be paid for separately but shall be included in the cost of this work.

Method of Measurement. This work will be measured for payment as each individual inlet filter installed and the unit of measurement will be each. No measurement will be made of maintenance and cleaning efforts. If an inlet filter is installed on multiple structures the inlet filter will only be measured for payment once.

Basis of Payment. This work will be paid for at the contract unit price per each for INLET FILTERS.

PAY ITEMS #13 & #14 – AGGREGATE SUBGRADE IMPROVEMENT

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradation CS 01 but shall not exceed 40 percent by weight of the total

product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer. The calibration for the mechanical feeders shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradation CS 01 shall be 24 in. (600 mm).

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

"**1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 36 inches of subgrade material is required, rounded gravel, meeting the CS01 gradation, may be used beginning at a depth of 12 inches below the bottom of pavement.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials. Non-mechanically blended RAP may be allowed up to a maximum of 5.0 percent.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness of less than 9 in. (225 mm) shall be CA 2 or CA 6.

(2) The coarse aggregate gradation for total subgrade thicknesses of 9 in. (225 mm) or greater shall be CS 01.

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS Sieve Size and Percent Passing				
	8”	6”	4”	2”	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20

PAY ITEM #17 – BITUMINOUS MATERIALS (TACK COAT)

Description. This work shall be performed in accordance with Section 406 of the Standard Specifications, with the following modifications:

Bituminous tack coat shall be placed at least one hour in advance of the placement of HMA, but no more than forty-eight hours in advance of the placement of HMA. If Contractor places tack coat more than forty-eight hours in advance of the placement of HMA, the tack coat will not be measured for payment, and Contractor will place tack coat again in accordance with this provision. Tack coat will not be placed on weekends or on legal holidays unless permitted by the Engineer. Tack coat will not be placed before weekends or legal holidays when placement of HMA is not expected to take place until after the weekend or legal holiday, unless permitted by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per pound of residual asphalt for BITUMINOUS MATERIALS (TACK COAT).

PAY ITEM #19 – HOT-MIX ASPHALT SURFACE REMOVAL – BUTT JOINT

Description. This work shall consist of constructing a butt joint and a satisfactory transition between pavement being removed and pavement remaining in place, in accordance with Articles 406.08 and 440.04 of the Standard Specifications, with the following modifications:

Contractor shall saw the joint between pavement remaining and pavement being removed, with a concrete sawing machine. Depth shall be as shown in the plans or construction details. This work shall be done in such a manner that a straight joint will be secured, and this work shall be considered as included in the unit bid price of this item.

The removal of existing pavement surface shall be according to Section 440 of the Standard Specifications. Should any pavement be damaged by removal operations beyond the construction limits shown in the plans to a degree sufficient to warrant replacement in Engineer's judgment, Contractor shall replace it in kind for no additional payment.

Method of Measurement. Surface removal will be measured in place and the area computed in

square yards. The square yards measured will be paid for only once, regardless of the number of passes needed to remove the material.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT.

PAY ITEM #24 – DETECTABLE WARNINGS

Description. This work shall be performed in accordance with Section 424 of the Standard Specifications, with the following modifications:

Detectable warnings shall be installed at curb ramps and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances where permanent traffic control devices are present.

Materials. Detectable warnings shall be pre-cast tiles. Installation shall be cast-in-place. Surface mounted applications will not be permitted. Detectable warnings shall be red in color. Detectable warning tiles shall be either rectangular or radial in shape as shown on the plans or as directed by the Engineer. The product or products to be used for detectable warnings shall be approved by the Engineer prior to use.

Construction. Installation shall be according to the manufacturer's specifications and as directed by the Engineer.

Where a curb ramp is 5 ft. in width or less and a rectangular detectable warning tile is to be used, the installation shall consist of a single detectable warning tile. If a pre-cast detectable warning tile is not manufactured in the width of the curb ramp, a larger detectable warning tile shall be furnished and shall be cut to the width of the curb ramp.

Installation of multiple detectable warning tiles at a single curb ramp will only be permitted where a curb ramp exceeds 5 ft. in width or where radial detectable warning tiles are to be used. Where multiple detectible warning tiles are permitted at a single curb ramp, they shall be mechanically joined prior to installation.

Method of Measurement. Detectable warnings will be measured for payment in place and the area computed in square feet.

Basis of Payment. This work will be paid for at the contract unit price per square foot for DETECTABLE WARNINGS.

PAY ITEMS #29 & #30 – CLASS C & D PATCHES

Description. This work shall be performed in accordance with Section 442 and Article 701.17(e) of the Standard Specifications, with the following modifications:

Pavement patching shall not exceed beyond half the roadway width at a time. Pavement patching will not be quantified by type or types of patching areas. The class of patch shall only specify a depth.

All patches shall be saw cut full-depth prior to removal of the existing pavement. Saw cuts shall be

completed no more than three days prior to removal of the existing pavement. Saw cutting shall be included in all pavement patching regardless of class specified. Jointing shall be included in all PCC pavement patching.

Basis of Payment. This work will be paid for at the contract unit price per square yard for CLASS C PATCHES or CLASS D PATCHES, of the thickness specified.

PAY ITEMS #31 & #32 – STORM SEWERS, CLASS A

Description. This work shall consist of installing storm sewers in accordance with Section 550 of the Standard Specifications, with the following modifications:

Materials. The kinds of materials permitted for “CLASS A” storm sewers shall only be reinforced concrete sewer pipe. The designation of “type” which refers to the fill height over the top of the pipe will not be classified in the plans. Instead, the Contractor shall use the rims and inverts provided in the plans to determine the appropriate fill height and strength class of reinforced concrete pipe according to ASTM C76 and Article 550.03 of the Standard Specifications. Should a run of pipe encounter multiple fill heights over the pipe, the more conservative strength class shall be used for the entire pipe run.

Basis of Payment. When CLASS A storm sewers are specified, this work will be paid for at the contract unit price per foot for STORM SEWERS, CLASS A, of the diameter specified or STORM SEWERS, RUBBER GASKET, CLASS A, of the diameter specified.

PAY ITEM #33 – STORM SEWERS, CLASS B

Description. This work shall consist of installing storm sewers in accordance with Section 550 of the Standard Specifications, with the following modifications:

Materials. The kinds of materials permitted for “CLASS B” storm sewers shall only be polyvinyl chloride (PVC) pipe. The PVC pipe shall have a Standard Dimension Ratio (SDR) of 26 conforming to ASTM D2241 with gasket joints conforming to ASTM D3212. If PVC pipe material per ASTM D2241 is not available, then an alternate material designation can be requested to the Engineer for approval. All supplied pipes and fittings must be from the same manufacturer. Connections to existing sewer lines shall be made using non-shear Fernco RC Series or Mission Flex-Seal adjustable repair couplings equipped with stainless steel bands.

Basis of Payment. When CLASS B storm sewers are specified, this work will be paid for at the contract unit price per foot for STORM SEWERS, CLASS B, of the diameter specified.

PAY ITEM #34 – WATER VALVES

Description. This work shall consist of constructing water valves. This work shall be in accordance with applicable portions of Section 561 of the Standard Specifications and the Water and Sewer Specifications, with the following modifications:

Materials. Water valves shall be AMERICAN Flow Control Series 2500 Ductile Iron Resilient Wedge Gate Valves conforming to ANSI/AWWA C515, with mechanical joint end connections, of the diameter

specified, or approved equal. All exterior valve body bolting shall be Type 304 stainless steel.

Water main pipe shall be ductile iron pipe conforming to ANSI/AWWA C151/A21.51, Class 52 standard thickness, with push-on joints conforming to AWWA C111.

Water main couplings shall be Krausz Hymax Grip coupling restraints of the diameter required, or approved equal.

Mechanical joint restraints shall be EBAA Iron, Inc., MEGALUG Mechanical Joint Restraints for Ductile Iron Pipe, or approved equal.

All bolts, nuts, washers, and other hardware to be installed below grade shall be Type 304 stainless steel.

Construction. Water valves shall be installed in a pre-cast concrete valve vault unless otherwise specified. The valve shall be placed on a solid concrete block resting on the bottom of the valve vault. The valve shall be placed so that the operating nut is centered under the opening of the valve vault.

Where a new water valve is to be installed on an existing water main, the existing water main shall be cut by an approved method and a section of existing water main of sufficient length shall be removed. The valve shall be joined on both ends to sections of new water main pipe of the proper length with mechanical joint restraints. The valve and pipe assembly shall be positioned in place between the two cut ends of the existing water main and the ends of the existing water main shall be joined to the valve assembly with water main couplings of the proper size. The labor, equipment and materials which are necessary to construct a new water valve on an existing water main will not be paid for separately but shall be included in the cost of this work.

Excavation, bedding, and backfilling needed for the installation of water valves will not be paid for separately but shall be included in the cost of this work.

Basis of Payment. This work will be paid for at the contract unit price per each for WATER VALVES, of the diameter specified.

PAY ITEM #35 – FIRE HYDRANTS TO BE REMOVED

Description. This work shall consist of removing fire hydrants in locations where new fire hydrants are not to be installed. This work shall be in accordance with Section 564 of the Standard Specifications and with the Water and Sewer Specifications, with the following modifications:

Where an existing fire hydrant is to be removed and replaced with a new fire hydrant in substantially the same location, removal of the existing fire hydrant will not be paid for separately but shall be included in the cost of the fire hydrant installation.

Materials. Water main pipe shall be ductile iron pipe conforming to ANSI/AWWA C151/A21.51, Class 52 standard thickness.

Water main couplings shall be Krausz Hymax Grip coupling restraints of the diameter required, or approved equal.

All bolts, nuts, washers, and other hardware to be installed below grade shall be Type 304 stainless

steel.

Construction. The existing fire hydrant, auxiliary valve, valve box, hydrant lead, tee, and a portion of the adjoining water main shall be excavated and exposed. The existing water main shall be cut on both sides of the tee by an approved method and a section of existing water main shall be removed along with the tee, hydrant lead, valve box, auxiliary valve and fire hydrant. A section of new water main pipe of the proper length shall be positioned in place between the two cut ends of the existing water main and the ends of the existing water main shall be joined to the new section of water main pipe with water main couplings of the proper size.

The excavation shall be backfilled with crushed aggregate of CA-6 gradation and mechanically compacted in lifts not exceeding 12 in.

Excavation and backfilling will not be paid for separately, but shall be included in the cost of this work.

Fire hydrants which are removed and are selected by the Engineer to be salvaged shall remain the property of the Village and shall be delivered by the Contractor to the Village of Villa Park Public Works Department yard located at 51 South Ardmore Avenue in Villa Park. Delivery shall be made during the normal working hours of the Village of Villa Park Public Works Department and the Contractor shall coordinate the day, time and other details of delivery with the Village. Fire hydrants which are not selected by the Engineer to be salvaged shall become the property of the Contractor and shall be removed from the site by the end of the workday and properly disposed of by the Contractor. The delivery or disposal of fire hydrants will not be paid for separately but shall be included in the cost of this work.

Basis of Payment. This work will be paid for at the contract unit price per each for FIRE HYDRANTS TO BE REMOVED.

PAY ITEM #36 – FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description. This work shall consist of constructing fire hydrants with auxiliary valves and valve boxes. This work shall be in accordance with Section 564 of the Standard Specifications and Section 45 of the Water and Sewer Specifications, with the following modifications:

Materials. Fire hydrants shall be AMERICAN Flow Control 5-¼" Waterous Pacer Fire Hydrant Model WB67-250, conforming to ANSI/AWWA C502, 6' - 0" bury depth, with all stainless steel trim, above-ground breakable flanges, and auxiliary resilient wedge gate valve and valve box. Fire hydrants shall be fitted with DDP-arrangement nozzle sections with one 4-½ in. pumper nozzle and two 2-½ in. hose nozzles with National Standard threads and a National Standard operating nut.

Fire hydrants shall be factory painted red, prime coated with an epoxy, and finish coated with a two-part polyurethane top coat. Fire hydrants that are not factory painted red will be considered unacceptable and will be rejected.

Fire hydrants which are to be constructed on existing water mains where a 6' - 0" bury depth is incompatible with the depth of the existing water main shall be substituted with a fire hydrant of a different bury depth as approved by the Engineer.

Auxiliary valves shall be AMERICAN Flow Control Series 2500 Ductile Iron Resilient Wedge Gate Valves conforming to ANSI/AWWA C515, with mechanical joint end connections, 6 in. diameter. All

exterior valve body bolting shall be Type 304 stainless steel.

Valve boxes shall have a cover embossed with the word “WATER”.

Hydrant lead pipe shall be ductile iron pipe conforming to ANSI/AWWA C151/A21.51, Class 52 standard thickness, with push-on joints conforming to AWWA C111, 6 in. diameter.

Water main couplings shall be Krausz Hymax Grip coupling restraints of the diameter required, or approved equal.

Mechanical joint restraints shall be EBAA Iron, Inc., MEGALUG Mechanical Joint Restraints for Ductile Iron Pipe, or approved equal.

Valve box stabilizer grips shall be by BLR Enterprises, Inc., or approved equal.

All hardware and fasteners to be installed below grade shall be stainless steel. Bolts and threaded rods shall be Type 304 stainless steel and nuts and washers shall be Type 300 stainless steel.

Fire hydrant barrel extensions, if permitted, shall be AMERICAN Flow Control Waterous Series and shall be a maximum of 18 in.

Construction. The fire hydrant shall be installed so that the standpipe is plumb. The center of the lowest nozzle shall be placed at least 18 in. but not more than 24 in. above finished grade. The breakable flanges shall be positioned 2 in. above finished grade. The nearest part of the hydrant shall be at least 3 ft. but not more than 8 ft. behind the back of curb. The nearest part of the hydrant shall be at least 3 ft. from all paved surfaces. Where hydrants are to be installed adjacent to a roadway they shall be placed so that the pumper nozzle faces the roadway and is perpendicular to the direction of travel of the roadway. Where hydrants are not to be installed adjacent to a roadway they shall be placed according to the plans or as directed by the Engineer.

Fire hydrants and auxiliary valves shall be set on a firm foundation of precast concrete blocks and shall be thrust blocked. Additional precast concrete bricks shall be placed under the auxiliary valve as needed. Thrust blocking shall consist of Class SI concrete cast in place against the fittings and the undisturbed earth on any side or sides of the excavation where thrust is expected to occur. A minimum of ¼ cu. yd. of concrete shall be used for the thrust blocking. The dimensions of the thrust blocking shall be determined by the Engineer. Thrust blocking may also consist of the placement of precast concrete blocks at the discretion of the Engineer. Additional precast concrete blocks shall be placed on the bottom, back and sides of the hydrant as directed by the Engineer to hold the hydrant solid and vertical. All blocks, bricks and thrust blocking shall be placed such that the pipe, joints and fittings shall be accessible for future repair and so that the hydrant drain holes are not blocked.

Mechanical joint restraints shall be installed on all mechanical fittings. Stainless steel threaded tie rods shall be installed between the fire hydrant barrel and the tee fitting on the water main. Valve box stabilizer grips shall be installed. Barrel extensions will only be permitted at the discretion of the Engineer.

Fire hydrants shall be braced during backfilling. The area around the base of the hydrant shall be backfilled with a minimum of 1 cu. yd. of washed stone. The washed stone shall be covered with polyethylene sheeting prior to further backfilling. Backfill material shall be placed in lifts not exceeding 6 in. in thickness, loose measurement, and compacted in a manner approved by the Engineer.

Fire hydrants not in service shall be covered with plastic bags until the fire hydrants are in service.

Excavation, bedding, and backfilling of fire hydrants will not be paid for separately but shall be included in the cost of this work.

Method of Measurement. This work will be measured for payment as each fire hydrant with auxiliary valve and valve box installed. No separate measurement will be made of pipe, fittings, hardware, or any other components.

Basis of Payment. This work will be paid for at the contract unit price per each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX.

PAY ITEM #41 – VALVE VAULTS, TYPE A

Description. This work shall consist of constructing valve vaults with frames and lids as shown in the plans or as directed by the Engineer according to the construction details in the plans and Section 602 of the Standard Specifications, with the following modifications:

In cases where only the valve vault is being replaced and no work is being done to the existing watermain, the proposed valve vault barrel section shall be of “doghouse” type to fit over existing main. The valve vault base will be a precast base. A continuous layer of non-hardening preformed bituminous mastic material will be used at each joint to prevent inflow. Brick and mortar will be used to close the watermain openings.

Basis of Payment. This work will be paid for at the contract unit price per each for VALVE VAULTS, TYPE A, of the diameter specified and with the type of frame and lid specified.

PAY ITEM #56 – REBUILD EXISTING HANDHOLE (D-1)
Effective: January 1, 2012
Revised: January 1, 2015
895.04TS

Description. This item shall consist of rebuilding and bringing to grade a handhole at a location shown on the plans or as directed by the Engineer. The work shall consist of removing the handhole frame and cover and the walls of the handhole to a depth of eight (8) inches below the finished grade.

Upon completion of the above work, four (4) holes, four (4) inches in depth and one half (1/2) inch in diameter, shall be drilled into the remaining concrete; one hole centered on each of the four handhole walls. Four (4) #3 steel dowels, eight (8) inches in length, shall be furnished and shall be installed in the drilled holes with a masonry epoxy.

All concrete debris shall be disposed of outside the right-of-way.

The area adjacent to each side of the handhole shall be excavated to allow forming. All steel hooks, handhole frame, cover, and concrete shall be provided to construct a rebuilt handhole according to applicable portions of Section 814 of the Standard Specification and as modified in 814.01TS HANDHOLES Special Provision. The existing frame and cover shall be replaced if it was damaged during removal or as determined by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per each for REBUILD EXISTING HANDHOLE, which price shall be payment in full for all labor, materials, and equipment necessary to complete the work described above and as indicated on the drawings.

PAY ITEMS #57 & #58 – HOT-MIX ASPHALT DRIVEWAY PAVEMENT

Description. This work shall consist of paving hot-mix asphalt driveway aprons, of the thickness specified, which composition will be of a binder course and surface course as shown in the Hot-Mix Asphalt Mixture Requirements table in the plans and according to Section 406 of the Standard Specifications, with the following modifications:

For an HMA driveway pavement thickness of less than 6", the aggregate base course, type b will be 6" thick. For an HMA driveway pavement thickness of 6" or more, the aggregate base course, type b will be 8" thick.

Excavation and disposal of materials required to construct the proposed driveway pavement with aggregate base course will be included in this work.

Method of Measurement. This work will be measured for payment as follows:

(a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) in the Standard Specifications.

(b) Measured Quantities. Hot-Mix Asphalt Driveway Pavement will be measured for payment in place and the quantity computed in square yards. The width of measurement shall be the width of the top HMA lift as shown on the plans or as directed by the Engineer.

Aggregate base course, excavation and disposal of materials will not be measured for payment but shall be considered as included in the cost of HOT-MIX ASPHALT DRIVEWAY PAVEMENT, of the thickness specified.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT, of the thickness specified.

PAY ITEM #60 – DRAINAGE AND UTILITY STRUCTURES TO BE ADJUSTED

Description. This work shall consist of adjusting drainage and utility structures in accordance with Sections 602 and 603 of the Standard Specifications, with the following modifications:

Adjustment will be made with existing frames and grates or lids unless otherwise specified. New frames and grates or lids will be paid for separately according to the Special Provision "Frames, Grates and Lids" described herein.

All drainage and utility structures called off to be adjusted in the plans or as directed by the Engineer shall be reset even if there is no change in final rim elevation.

Basis of Payment. This work will be paid for at the contract unit price per each for DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED.

PAY ITEM #61 – DRAINAGE AND UTILITY STRUCTURES TO BE RECONSTRUCTED

Description. This work shall consist of reconstructing drainage and utility structures not paid for as adjusted in accordance with Sections 602 and 603 of the Standard Specifications, with the following modifications:

Reconstruction will be made with existing frames and grates or lids unless otherwise specified. New frames and grates or lids will be paid for separately according to the Special Provision "Frames, Grates and Lids" described herein.

Drainage and utility structures requiring reconstruction will also be cleaned by the Contractor. The drainage and utility structures shall be cleaned of silt, debris or other foreign matter of any kind and will be free from such accumulation at the time of final inspection.

Method of Measurement. The cleaning of drainage and utility structures, regardless of size, and the removal and disposal of accumulated debris will not be measured for payment separately but shall be considered as included in the cost of this item.

Basis of Payment. This work will be paid for at the contract unit price per each for DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED.

PAY ITEM #62 – STORM SEWER (WATER MAIN REQUIREMENTS)

Description. This work consists of constructing storm sewer of the specified diameter adjacent to or crossing water main, at the locations shown on the plans, meeting the material and installation requirements of the Water and Sewer Specifications, and the applicable portions of Section 550 of the Standard Specifications.

Materials. Pipe materials shall meet the requirements of Sections 40 and 41-2.01 of the Water and Sewer Specifications, allowing the use of only ductile iron pipe. Ductile iron pipe shall meet the minimum requirements for Thickness Class 52.

Encasing (with seals) of standard type storm sewer, in accordance with the details for "Water and Sewer Separation Requirements (Vertical Separation)", (DIV. V/STANDARD DRAWINGS) in the Water and Sewer Specifications, may be used for storm sewers crossing water mains with prior approval from the Engineer.

Basis of Payment. This work will be paid for in accordance with Article 550.10 of the Standard Specifications, except the pay item shall be STORM SEWER (WATER MAIN REQUIREMENTS), of the diameter specified.

PAY ITEM #63 – SAWING P.C. CONCRETE PAVEMENT (FULL DEPTH)

Description. This work shall consist of providing full-depth saw cuts to create a new edge-of-pavement in concrete pavements with monolithic curb. The saw cuts will be made as shown on the plans and as directed by the Engineer according to applicable portions of Section 442 of the Standard Specifications, with the following modifications:

The Contractor will only be paid once to satisfactorily complete the full-depth saw cuts according to

the dimensions and lengths shown on the plans. Any additional work needed to create a new edge-of-pavement will not be paid for separately but shall be included in the cost of this item. Any damage done to areas outside of this work due to Contractor's negligence will be repaired or replaced in kind at Contractor's own expense.

Method of Measurement. Full-depth saw cuts will only be measured for payment in creating a new edge-of-pavement in concrete pavements with monolithic curb. Full-depth saw cuts will be measured for payment in place in feet. Saw cuts will not be measured for other removal operations, but shall be included in the item being removed.

Basis of Payment. This work will be paid for at the contract unit price per foot for SAWING P.C. CONCRETE PAVEMENT (FULL DPETH).

PAY ITEM #69 – TOPSOIL FURNISH AND PLACE, 4" (SPECIAL)

Description. This work shall be performed in accordance with Section 211 of the Standard Specifications, with the following modifications:

The nominal depth of topsoil to be furnished and placed is 4". Variations in depth may exist throughout the project area which may require a larger or smaller depth of topsoil depending on the final grading conditions. Where applicable, the Contractor shall grade the disturbed parkway such that it positively drains towards the roadway.

Excavation and disposal of materials required to positively grade the landscaped areas will be included in this work.

Method of Measurement. Topsoil furnish and place, regardless of variations in depth, will be measured in square yards.

Excavation and disposal of materials will not be measured for payment but shall be considered as included in the cost of TOPSOIL FURNISH AND PLACE, 4" (SPECIAL).

Basis of Payment. This work will be paid for at the contract unit price per square yard for TOPSOIL FURNISH AND PLACE, 4" (SPECIAL).

PAY ITEM #70 – EXPLORATION TRENCH, SPECIAL

Description. This work shall consist of constructing a trench for the purpose of locating and inspecting an existing utility or utilities. This work shall be in accordance with Section 213 of the Standard Specifications, with the following modifications:

The exploration trench may be used to locate any existing utility or utilities, including, but not limited to, water mains, water services, sewer mains, sewer services, field tiles, gas lines, underground electric lines, underground telephone lines, underground cable TV lines, underground communication lines, underground fiber optic lines, and other utilities as applicable.

The exploration trench may be used to locate existing utilities regardless of whether the utilities are public or private; known or unknown; or marked or unmarked. The exploration trench may also be used to inspect the condition of existing utilities, determine the material type or dimensions of existing

utilities, and to verify clearances between multiple utilities.

The exploration trench shall be constructed at the locations shown on the plans or as directed by the Engineer. The depth of the exploration trench shall vary as necessary, but shall be sufficient to locate the utility or utilities under investigation. The width of the trench shall be sufficient to allow proper investigation of the entire trench.

Upon completion of the exploration trench, the trench shall be backfilled. All exploration trenches where the inner edge of the trench is within 2 feet of an existing or proposed edge of pavement, driveway, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk shall be backfilled with trench backfill in accordance with Section 208 of the Standard Specifications. Exploration trenches which do not require trench backfill shall be backfilled in accordance with Article 550.07 of the Standard Specifications. Backfilling of exploration trenches will not be measured for payment but shall be included in the cost of this work.

Method of Measurement. The exploration trench will be measured for payment in feet of actual trench constructed, regardless of the depth of the trench constructed. No additional measurement or compensation will be allowed for any delays or unforeseen circumstances arising from this work. The use of trench backfill where required as backfill material per Section 208 of the Standard Specifications will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL.

PAY ITEM #71 – SODDING, SPECIAL

Description. This work shall be performed in accordance with Section 252 of the Standard Specifications, with the following modifications:

Nitrogen fertilizer and potassium fertilizer will be used as specified in Article 252.03 of the Standard Specifications. Phosphorus fertilizer will not be used due to its negative environmental impacts.

Method of Measurement. Fertilizer will not be measured for payment but shall be considered as included in the cost of SODDING, SPECIAL.

Basis of Payment. This work will be paid for at the contract unit price per square yard for SODDING, SPECIAL.

PAY ITEM #72 –TEMPORARY ACCESS (DRIVEWAY ENTRANCE)

Description. This work shall consist of constructing and maintaining an aggregate surface course for temporary access to driveway entrances according to Article 402.07 and other applicable portions of Section 402 of the Standard Specifications, with the following modifications:

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer. The Engineer will be the sole judge in determining the appropriate use of these items. The Contractor will need approval from the Engineer prior to the placement of any aggregate for temporary access described below.

(a) Driveway Entrance. The minimum width shall be 12 feet. The minimum compacted thickness shall be 6 inches. The maximum grade shall be eight percent, except as required to match the existing grade.

Maintaining the temporary access shall include relocating and/or re-grading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.

Method of Measurement. Aggregate surface course for temporary access will be measured for payment as each for every driveway entrance constructed for the purpose of temporary access. If a driveway entrance is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.

Basis of Payment. Aggregate surface course used for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (DRIVEWAY ENTRANCE).

Partial payment of the each amount bid for this item will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each of this item will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal and disposal of the temporary access.

(c) If the Contractor chooses to re-use the aggregate for temporary access in the permanent construction of the proposed items specified in the contract, the Contractor will forfeit partial payment of the remaining forty percent. Instead, the Contractor will be paid for the permanent construction work using the proposed pay items for the specified work.

PAY ITEM #73 –TEMPORARY ACCESS (ROAD)

Description. This work shall consist of constructing and maintaining an aggregate surface course for temporary access to roads according to Article 402.07 and other applicable portions of Section 402 of the Standard Specifications, with the following modifications:

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer. The Engineer will be the sole judge in determining the appropriate use of these items. The Contractor will need approval from the Engineer prior to the placement of any aggregate for temporary access described below.

(a) Road. The minimum width shall be 24 feet. The minimum compacted thickness shall be 9 inches. The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or re-grading the aggregate surface

coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.

Method of Measurement. Aggregate surface course for temporary access will be measured for payment as each for every road constructed for the purpose of temporary access. If a road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.

Basis of Payment. Aggregate surface course used for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for this item will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each of this item will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal and disposal of the temporary access.

(c) If the Contractor chooses to re-use the aggregate for temporary access in the permanent construction of the proposed items specified in the contract, the Contractor will forfeit partial payment of the remaining forty percent. Instead, the Contractor will be paid for the permanent construction work using the proposed pay items for the specified work.

PAY ITEMS #74 & #75 – PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT

Description. This work shall consist of constructing portland cement concrete (PCC) driveway pavement, of the thickness specified, on a prepared aggregate base as shown in the plans or as directed by the Engineer according to Sections 351 and 423 of the Standard Specifications, with the following modifications:

For a PCC driveway pavement thickness of less than 8”, the aggregate base course, type b will be 4” thick. For a PCC driveway pavement thickness of 8” or more, the aggregate base course, type b will be 6” thick.

Excavation and disposal of materials required to construct the proposed driveway pavement with aggregate base course will be included in this work.

Method of Measurement. Aggregate base course, excavation and disposal of materials will not be measured for payment but shall be considered as included in the cost of PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, of the thickness specified, SPECIAL.

Basis of Payment. This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, of the thickness specified, SPECIAL.

PAY ITEMS #76 & #77 – PORTLAND CEMENT CONCRETE SIDEWALK

Description. This work shall consist of constructing portland cement concrete (PCC) sidewalk, of the thickness specified, on a prepared aggregate base as shown in the plans or as directed by the Engineer according to Sections 351 and 424 of the Standard Specifications, with the following modifications:

All constructed sidewalk shall comply with the slope and grade tolerances specified in the construction details shown in the plans and according to the latest edition of the Public Right-of-Way Accessibility Guidelines (PROWAG). The extent of sidewalk replacement shown in the plans at roadway intersections is approximate. The final limits of sidewalk replacement will be determined by the Engineer in the field in order to comply with the slopes and grades dictated by PROWAG. This work shall include re-grading, excavation and disposal of materials as directed by the Engineer to conform to these accessibility guidelines.

For a PCC sidewalk thickness of less than 8”, the aggregate base course, type b will be 4” thick. For a PCC sidewalk thickness of 8” or more, the aggregate base course, type b will be 6” thick.

When constructing PCC sidewalk through a residential driveway entrance, the thickness of the PCC sidewalk shall be 6” regardless of the actual thickness called off by the plan pay item.

Excavation and disposal of materials required to construct the proposed sidewalk with aggregate base course will be included in this work.

Method of Measurement. Aggregate base course, excavation and disposal of materials will not be measured for payment but shall be considered as included in the cost of PORTLAND CEMENT CONCRETE SIDEWALK, of the thickness specified, SPECIAL. The increase in sidewalk thickness to 6” through a residential driveway entrance will not be measured for payment but shall be considered as included in the cost of PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL.

Basis of Payment. This work will be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, of the thickness specified, SPECIAL.

PAY ITEM #78 – PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)

Description. This work shall consist of the removal of portland cement concrete (PCC) surfaces in preparation for subsequent hot-mix asphalt (HMA) resurfacing as shown in the plans or as directed by the Engineer according to Section 440 of the Standard Specifications, with the following modifications:

The nominal removal depth shall be an edge grind varying between 2.5 inches and 0 inches. Additional variations in grinding may occur depending on field conditions. No additional compensation will be provided for these varying conditions.

Method of Measurement. This work will be measured for payment as follows:

(a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) in the Standard Specifications.

(b) Measured Quantities. PCC surface removal will be measured for payment in place and the area computed in square yards. The square yards measured will be paid for only once,

regardless of the number of passes required to remove the material. The width shall be as shown on the plans or as directed by the Engineer.

Removal of PCC surface outside the designated limits as shown on the plans or as directed by the Engineer will not be measured for payment. Areas damaged outside these limits will be repaired at Contractor's own expense.

Basis of Payment. This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH).

PAY ITEM #79 – HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

Description. This work shall consist of the removal of hot-mix asphalt (HMA) surfaces in preparation for subsequent resurfacing as shown in the plans or as directed by the Engineer according to Section 440 of the Standard Specifications, with the following modifications:

The nominal removal depth is shown on the plans for the various roadways. In certain situations, the Engineer may vary the HMA surface removal depth from 0" (MIN.) to 4" (MAX.) to remove irregularities and imperfections in the roadway cross-slope and profile. In certain situations, this may also require a variable edge grind in order to have the subsequent resurfacing meet the proposed edge-of-pavement.

In composite sections consisting of a HMA surface pavement over a portland cement concrete (PCC) base pavement, the minimum HMA surface removal shall be 2.5". Under no condition will there be less than 2.5" of material removal, even if it requires the Contractor to remove some of the PCC base pavement. Grinding of PCC pavement overlaid by HMA pavement will be included in the cost of this item.

Method of Measurement. This work will be measured for payment as follows:

(c) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) in the Standard Specifications.

(d) Measured Quantities. HMA surface removal will be measured for payment in place and the area computed in square yards. The square yards measured will be paid for only once, regardless of the number of passes required to remove the material. The width shall be as shown on the plans or as directed by the Engineer.

Removal of HMA surface outside the designated limits as shown on the plans or as directed by the Engineer will not be measured for payment. Areas damaged outside these limits will be repaired at Contractor's own expense. Adjustment of quantities will not be allowed should the Engineer choose to vary the depth of surface removal. Additional compensation will not be allowed if PCC base pavement is encountered during the surface removal process.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.

PAY ITEM #80 – AGGREGATE SHOULDERS (SPECIAL)

Description. This work shall mostly consist of grading and shaping aggregate shoulders according to Section 481 of the Standard Specifications, with the following modifications:

The Contractor shall create a smooth transition between the proposed pavement surface and the adjacent existing aggregate surface. This work will require the grading and shaping of the existing aggregate surface to the widths and locations shown in the plans or as directed by the Engineer. If there is insufcient existing aggregate to properly grade and shape the aggregate shoulder for positive drainage, then the Contarctor shall furnish and place new aggregate material to meet the grades of the proposed adjacent items. All aggregate shoulders shall be mechanically compacted.

There are some areas where existing aggregate surface does not exist. In these aeras where proposed aggregate shoulders are called out in the plans, the Contractor shall excavate and dispose of the existing material in order to furnish and place a compacted aggregate shoulder thickness of 6 inches.

Method of Measurement. This work will be measured for payment in square yards according to Article 311.08, except payment will not be made for aggregate outside the plan width.

Basis of Payment. This work will be paid for at the contract unit price per square yard for AGGREGATE SHOULDERS (SPECIAL).

PAY ITEM #81 – VALVE BOXES TO BE ADJUSTED (SPECIAL)

Description. This work shall consist of adjusting valve boxes to the finished grade as shown in the plans or as directed by the Engineer according to Section 602 of the Standard Specifications, with the following modifications:

If the Contractor is unable to adjust the valve box to the final grade, the Contractor shall remove the existing valve box and install a new valve box similar in material and size. The Contractor will make sure the new valve box will be able to fit over the existing water valve and have the ability to adjust to the final grade.

The Engineer will review the condition of the old valve box to determine if it should be returned to the Village or disposed of by the Contractor. If the Engineer deems it salvageable, the Contractor shall deliver the old valve box to the Public Works Department Yard at 51 South Ardmore Avenue. Otherwise, the Contractor shall appropriately dispose of the valve box.

Method of Measurement. This work will be measured for payment in units of each valve box adjusted. If the valve box is unable to be adjusted, the occurrence of removing the old valve box and installing a new valve box will collectively be measured for payment in units of each occurrence. The delivery of old valve box to the Public Works Department Yard or disposal of old valve box will not be measured for payment but shall be considered as included in the cost of this item.

Basis of Payment. This work will be paid for at the contract unit price per each for VALVE BOXES TO BE ADJUSTED (SPECIAL).

PAY ITEMS #82 TO #85 – COMBINATION CONCRETE CURB AND GUTTER

Description. This work shall consist of constructing combination concrete curb and gutter on a prepared aggregate base as shown on the plans or as directed by the Engineer. This work shall be done in accordance with Sections 351 and 606 of the Standard Specifications, Standard No. 606001 and the construction details shown in the plans, with the following modifications:

Combination concrete curb and gutter shall be constructed on 4" (minimum) of aggregate base course, type b. Only forms made of wood shall be used. Forms constructed of steel or Masonite will not be permitted. Forms for radius sections of the combination concrete curb and gutter shall be constructed on 1-inch thick wood boards.

Depressed curb for alleys, driveway openings, sidewalk ramps accessible to the disabled, and any other designated areas shall be constructed at the locations shown on the plans or as directed by the Engineer. There may be certain areas of curb and gutter that have depressed curbs in locations that do not warrant such depressions. The Engineer may decide in the field to replace these locations to a barrier curb and gutter. The transition from full height curb to depressed curb shall be made over a distance equal to at least four times the difference in height between the full height curb and the depressed curb. Any variations in curb height, gutter width, or other modifications to meet or alter existing conditions will be included in the cost of this item.

When combination concrete curb and gutter is constructed across sidewalk curb ramps, the depressed curb height and gutter slope shall be in accordance with the Public Right-of-Way Accessibility Guidelines (PROWAG).

Combination concrete curb and gutter at the alley returns is to be constructed adjacent to the longitudinal edge of the rectangular driveway alley pavement out to the specified radius of the back-of-curb shown in the grading details of the plans. The resulting shape will constitute the entire combination concrete curb and gutter and will be measured for payment as described below.

Where combination concrete curb and gutter is to be constructed adjacent to existing pavement that is not being reconstructed, the Contractor will be required to saw cut 6 inches off the edge-of-pavement. The void between the existing pavement and the proposed combination concrete curb and gutter shall be filled in with a concrete wedge with a minimum width of 6 inches and a minimum thickness of 8 inches. The concrete wedge shall be placed after the combination concrete curb and gutter has been placed and the forms have been removed. The top of concrete wedge will be located 2" below the proposed gutter for subsequent HMA surface course.

Concrete curing methods shall be limited to the methods specified in Article 1020.13 (a) (1), (2), and (3) of the Standard Specifications. Expansion joints shall be constructed at 60 ft. maximum centers. Expansion joints shall also be constructed at all construction joints, all points of curvature, all points of tangency, within 5' on either side of all curb structure castings, and at additional locations as directed by the Engineer. Expansion joints shall consist of a 1 in. thick preformed bituminous expansion joint filler that extends the full cross section of the combination concrete curb and gutter. Expansion joint filler material that is larger than the cross section of the combination concrete curb and gutter shall be cut to the exact cross section of the combination concrete curb and gutter. Expansion joints shall have two 18 in. long, No. 6 non-deformed epoxy-coated steel dowel bars placed at mid-depth. The dowel bars shall have a greased plastic expansion cap placed on one end of each dowel bar a minimum of 1 in. from the end of the dowel bar.

Where proposed combination concrete curb and gutter is to be constructed abutting existing

combination concrete curb and gutter, the dowel bars shall be drilled into the existing combination concrete curb and gutter. This work will not be paid for separately but shall be included in the cost of this item.

Contraction joints shall be constructed at 15 ft. maximum centers. Where the location of a contraction joint coincides with the location of an expansion joint, the contraction joint may be omitted at the discretion of the Engineer. Contraction joints shall be tooled and sawed. Sawing of contraction joints shall commence as soon as the concrete has hardened sufficiently to permit sawing without excessive raveling, but in no case shall sawing commence less than 4 hours or more than 24 hours after the concrete is placed. Sawing of contraction joints shall be to a depth equal to 1/3 the thickness of the gutter flag and to a width of not less than 1/8 in. Contraction joints shall be sealed according to Article 420.12, except that joints shall be sealed with polysulfide or polyurethane joint sealant.

If Contractor fails to construct joints in accordance with the requirements of this provision and the curb cracks, the Contractor shall remove and replace the affected section of combination concrete curb and gutter extending the full length between the two adjacent joints on either side of the crack. This work will not be paid for separately but shall be at the Contractor's own expense.

Upon removal of the forms from the back of the combination concrete curb and gutter, excavated areas behind the combination concrete curb and gutter shall be immediately backfilled. Areas where pavement or sidewalks are to be constructed shall be backfilled with crushed aggregate of CA-6 or CA-7 gradation and mechanically compacted. Areas where topsoil and sodding are to be placed shall be backfilled with non-organic material acceptable to the Engineer. This work will not be paid for separately but shall be included in the cost of this item.

Method of Measurement. Aggregate base course will not be measured for payment but shall be considered as included in the cost of this item. Excavation and disposal of materials required in the performance of the work will not be measured for payment but shall be considered as included in the cost of this item.

The combination concrete curb and gutter at the alley returns will be measured for payment along the longitudinal edge of the driveway alley pavement regardless of the amount of concrete needed to complete the radii of the back-of-curbs.

For areas not being reconstructed, saw cutting 6" off the edge-of-pavement, removing the existing wedge, and filling in the void with a concrete wedge will be measured for payment according to the Special Provision "Concrete Wedge" as described herein.

Basis of Payment. This work will be paid for at the contract unit price per foot for CONBINATION CONCRETE CURB AND GUTTER, of the type specified, (SPECIAL).

Work consisting of removing and installing a concrete wedge adjacent to combination concrete curb and gutter will be paid for separately according to the Special Provision "Concrete Wedge" as described herein.

PAY ITEM #86 – CONCRETE WEDGE

Description. This work shall consist of constructing a concrete wedge adjacent to combination concrete curb and gutter in areas where the roadway is not being reconstructed or patched with Class C or D pavement patches. This work will be done according to Section 353 of the Standard

Specifications, with the following modifications:

Where combination concrete curb and gutter is to be constructed adjacent to existing pavement that is not being reconstructed or patched, the Contractor will be required to saw cut 6 inches off the edge-of-pavement. The saw cut and removal of existing 6" wedge will be included in the cost of this item.

The void between the existing pavement and the proposed combination concrete curb and gutter shall be filled in with a concrete wedge with a minimum width of 6 inches and a minimum thickness of 8 inches. The concrete wedge shall be constructed on 4" (minimum) of aggregate base course, type b. The concrete wedge shall be placed after the combination concrete curb and gutter has been placed and the forms have been removed. The top of concrete wedge will be located 2" below the proposed gutter for subsequent HMA surface course.

Method of Measurement. Aggregate base course will not be measured for payment but shall be considered as included in the cost of this item. Excavation and disposal of materials required in the performance of the work will not be measured for payment but shall be considered as included in the cost of this item.

The concrete wedge will be measured for payment in feet along the gutter's edge where the wedge has been placed.

Basis of Payment. This work will be paid for at the contract unit price per foot for CONCRETE WEDGE.

PAY ITEM #87 – TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

Description. This work shall include furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic during construction or maintenance of this improvement. Traffic Control and Protection shall be provided as called for in the Plans, these Special Provisions, applicable Highway Standards, and applicable sections of the Standard Specifications.

All traffic control devices used on this project shall conform to the Plans, Special Provisions, Traffic Control Standards, Traffic Specifications and the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD). Traffic Control Devices include signs and their supports, signals, pavement markings, barricades with sand bags, channelizing devices, warning lights, arrowboards, flaggers, or any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

The Contractor is required to conduct routine inspections of the worksite at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced, worn or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD, the Traffic Control Standards or will no longer present a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

The Contractor shall be responsible for the proper location, installation and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The Contractor shall immediately remove, cover or turn from the view of the motorists all traffic control

devices which are inconsistent with detour or lane assignment patterns and conflicting conditions during the transition from one construction stage to another. When the Contractor elects to cover conflicting or inappropriate signing materials used shall totally block out reflectivity of the sign and shall cover the entire sign. The method used for covering the signing shall meet with the approval of the Engineer.

When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished, installed and maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

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

Signs. All signs except those referring to daily lane closures shall be post mounted in accordance with Standard 720001 for all projects that exceed four days.

Construction signs referring to daytime lane closures during working hours shall be removed, covered or turned away from the view of the motorists during non-working hours.

"Fresh Oil" signs (W21-2) shall be used when prime is applied to pavement that is open to traffic. The signs are to remain until tracking of the prime ceases. The sign shall be erected a minimum of 500 feet preceding the start of prime on all side roads within the posted area. The "Fresh Oil" sign on the side road shall be posted a minimum of 200 feet from the mainline pavement.

"Rough Grooved Surface" signs (W8-I107) shall be used 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 a minimum of 500 feet preceding the start of the milled pavement and on all side roads within the posted area. The "Rough Grooved Surface" signs on the side roads shall be posted 200 feet from the mainline pavement. All signs shall have an 18" x 18" orange flag and an amber flashing light attached.

Placement and Removal of Signs and Barricades. Placement of all signs and barricades shall proceed in the direction of flow of traffic. Removal of all signs and barricades shall start at the end of the construction areas and proceed toward oncoming traffic unless otherwise directed by the Engineer.

Public Safety and Convenience. The Contractor shall provide the Engineer a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection. The Contractor shall dispatch men, materials and equipment to correct any such deficiencies. The Contractor shall respond to any call from the Engineer concerning any request for improving or correcting traffic control devices and begin making the requested repairs within two hours from the time of notification.

When traveling in lanes open to public traffic, the Contractor's vehicle shall always move with and not against or across the flow of traffic. These vehicles shall enter or leave work areas in a manner which will not be hazardous to, or interfere with, traffic and shall not park or stop except within designated work areas. Personal vehicles shall not park within the right of way except in specific areas designated by the Engineer.

Contractor shall contact the Village at least 72 hours in advance of beginning work. Construction

operations shall be conducted in a manner such that streets shall be open to emergency traffic and accessible as required to local traffic. Advanced notice shall be provided to residents, police, fire, school districts, school bus companies, and trash haulers when access to any street will be temporarily closed or limited. Removal and replacement of curb and gutter and driveways shall be planned so as to cause a minimum of inconvenience to the abutting property owners. The work shall be accomplished such that the streets shall be left open to local traffic at the end of each workday.

The Contractor shall be responsible for furnishing and implementing all traffic control for any road closures or detour routes which are permitted.

The Contractor shall be responsible for maintaining safe access to the construction site for school buses. The Contractor shall also be responsible for ensuring that any detour routes which are permitted are accessible to school buses.

The Contractor shall be responsible for maintaining access to the construction site for trash haulers. If trash haulers are unable to access the construction site, the Contractor shall relocate trash, recycling and other waste containers to a location accessible by the trash hauler, and shall return containers to their original location following pickup by the trash hauler.

Method of Measurement. This work will be measured for payment on a lump sum basis. No measurement will be made of any of the individual components of this work.

Basis of Payment. This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL), which price shall include all of the above listed requirements, details, standards, and special provisions.

Delays to the Contractor caused by complying with these requirements will be considered as included in the cost of this item, and additional compensation will not be allowed.

The bid price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) shall not exceed 5 percent of the total bid price. If the bid price for TRAFFIC CONTROL AND PROTECTION (SPECIAL) exceeds 5 percent of the total bid price, the Village may reject the Bid.

PAY ITEM #88 – CONNECTION TO EXISTING WATER MAIN (NON PRESSURE)

Description. This work shall consist of making non-pressure, cut-in connections of new water main to existing water main. This work shall be performed in accordance with applicable portions of Section 561 of the Standard Specifications and Section 41 of the Water and Sewer Specifications, with the following clarifications:

Materials. Water main pipe shall be ductile iron pipe conforming to ANSI/AWWA C151/A21.51, Class 52 standard thickness, with push-on joints conforming to AWWA C111, of the diameter required.

Water main fittings shall be ductile iron conforming to ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53. Fittings shall be cement mortar lined and tar coated in accordance with AWWA C104. Fittings shall have mechanical joint end connections unless otherwise specified. Fittings shall include tees, crosses, reducers, and all other fittings as may be necessary to construct a connection to an existing water main.

Water main couplings shall be Krausz Hymax Grip coupling restraints of the diameter required, or

approved equal.

Mechanical joint restraints shall be EBAA Iron, Inc., MEGALUG Mechanical Joint Restraints for Ductile Iron Pipe, or approved equal.

All bolts, nuts, washers, and other hardware to be installed below grade shall be Type 304 stainless steel.

Construction. The connection to the existing water main shall be accomplished by the use of fittings of the proper types and sizes, sections of new water main pipe of the proper lengths and diameters, water main couplings of the proper sizes, and mechanical joint restraints. The connection shall be made in the most direct configuration possible. The connection may be made to the existing water main or to existing valves or fittings.

Thrust blocking of all fittings shall be in accordance with Article 41-2.08 of the Water and Sewer Specifications and the details in the plans.

The water main pipe and fittings shall be placed on a bedding of crushed aggregate of CA-7 or CA-11 gradation having a minimum thickness of 4 in. The bedding shall be placed to a minimum of 12 in. above the water main pipe and fittings.

Excavation, bedding, and backfilling will not be paid for separately but shall be included in the cost of this work.

Method of Measurement. This work will be measured for payment as each connection made, regardless of the depth of the connection, the number or type of fittings required, or any other factors. No separate measurement will be made of pipe, fittings, couplings, hardware, or any other components.

Basis of Payment. This work will be paid for at the contract unit price per each for CONNECTION TO EXISTING WATER MAIN (NON PRESSURE) which price shall include all labor, materials, and equipment required to make the connection.

PAY ITEM #89 – PRECONSTRUCTION VIDEO TAPING

Description. This work consists of performing color video and audio recording of the project area and other areas which may be impacted by construction.

Preconstruction video recordings will include coverage of the project area and all other areas which may be impacted by construction. Video recordings will also include construction easements when applicable. Video recordings will provide a visual record of all physical features within those areas, including, but not limited to, roadways, pavements, curbs, gutters, driveways, driveway aprons, sidewalks, carriage walks, parkways, trees, landscaping, shrubbery, plantings, landscaping walls, retaining walls, fences, utility poles, light poles, utilities, manholes, b-boxes, cleanouts, valves, curb structures, pipelines, buildings, mailboxes, and any other features located within the project area.

Video recordings will begin with an audio narrative which provides the current date and time, the name of Owner and name of project, and a description of both the starting location and the location or locations to be recorded, including street name or names, street addresses, and any additional information which may be necessary to describe the location and subject of viewing.

Video recordings will maintain viewer orientation by means of an audio commentary in the audio track of each video recording which provides an explanation of what is being viewed; and by videotaping landmarks and readily identifiable objects (property addresses, street signs, etc.) at appropriate intervals.

Preconstruction video recordings will be recorded at a rate of travel not exceeding 48 feet per minute, and zooming and panning rates will be controlled to provide clarity of features during playback. The finished product will be provided with bright, clear pictures and accurate colors free from distortion, tearing, rolls, or other forms of picture imperfection. The audio will have proper volume and clarity. All recordings will be performed at times of satisfactory visibility, and when no more than ten percent of ground is obscured by snow, leaves, or other cover.

If any element within or portion of the project area is not adequately documented by the preconstruction video recording so as to definitively demonstrate its condition prior to the start of construction, Contractor will assume responsibility for the repair, restoration or replacement of that element or portion of the project area. Such repair, restoration or replacement will be to equal or better condition than previously existing, and will further comply with all standards and provisions which govern the work in question.

Schedule. Preconstruction video recording will be performed according to the following schedule:

(a) Preconstruction video recording will take place after a Notice to Proceed has been issued.

(b) Preconstruction video recording will take place after the Joint Utility Locating Information for Excavators (JULIE) request for the project area has cleared.

(c) Preconstruction video recording will take place before any equipment, materials, or other items are delivered to the site.

(d) Preconstruction video recording will take place no more than seven (7) chargeable days prior to the start of construction.

(e) Preconstruction video recording will take place, the required pre-construction video recording deliverables will be submitted to the Engineer, and the Engineer will review and issue written approval of the video before any activity other than utility locating will be permitted to start. Such activity will include, but not be limited to, delivery of materials and equipment, installation of traffic control and erosion control, and completion of construction layout and tree protection. No days will be charged against the contract time while the video is under review by the Engineer, including the day the deliverables are submitted and the day a response is provided. If the video or any portions thereof are rejected, the contract time will commence to run until revisions are submitted.

(f) The recording will be submitted to Engineer for review prior to commencement of any construction, and receive acceptance of recordings prior to commencement of construction. Any areas found not acceptable to the Owner will be re-filmed at no additional cost to the contract. The final recording shall be transferred onto DVD and both the DVD and video recording shall be presented in a manner acceptable to the Owner.

Deliverables. Video will be high-definition, with a minimum resolution of 1280 x 720 pixels per frame. Video will be filmed in a landscape aspect ratio. Video filmed in a portrait aspect ratio will be

considered unacceptable and will be rejected.

Preconstruction video recordings will be provided as electronic files of .avi, .mp4, .m4v, .mkv, .wmv, or .mpg file format, or of such other file format as may be approved by Engineer. Preconstruction video recordings will be provided as independent digital container format files, which container files will include all video, audio, and other electronic information necessary to view the preconstruction video recording as intended.

Video DVD will be considered an unacceptable format for providing preconstruction video recordings, and will be rejected.

Preconstruction video recording electronic files will be provided on a portable electronic media device or devices of one of the following types: USB flash drive, SD flash memory card, CF flash memory card, data DVD, external hard drive, or such other portable electronic media device as may be approved by Engineer. Preconstruction video recording electronic files may also be provided via online file sharing, cloud storage, File Transfer Protocol (FTP), or other online or network file transfer methods if approved by Engineer.

Preconstruction video recording electronic files will be accompanied by corresponding logs which document the dates, times, and locations covered by each preconstruction video recording electronic file.

Contractor shall maintain copies of all items submitted to Engineer for Contractor's own use and record.

Method of Measurement. This work will be measured for payment on a lump sum basis. No measurement will be made of the individual components of this effort.

Basis of Payment. Preconstruction video recording will be paid for at the contract lump sum price for PRECONSTRUCTION VIDEO TAPING.

PAY ITEMS #90 & #91 – SANITARY SEWER REPAIR, REMOVE AND REPLACE

Description. This work shall consist of repairing sanitary sewers by removing and replacing segments of sanitary services or main designated by the Engineer in the field. Multiple repairs may exist throughout multiple segments of sanitary sewers ranging from a minimum repair length of 5 feet to the length required by the Engineer. This item shall also include the re-connection of existing services, the re-connection of new sewer pipe with existing sewer pipe, and the connection of the new sewer pipe to the existing manhole, including outside drop connection. All work shall be performed in accordance with Section 550 of the Standard Specifications and Section 31 and 40 of the Water and Sewer Specifications, with the following modifications:

All trench backfill required according to Section 208 of the Standard Specifications shall be included in the cost of this item.

Any reference made to storm sewers in Section 550 of the Standard Specifications shall also apply to sanitary sewers and services described herein.

Materials. Sanitary sewer shall be polyvinyl chloride (PVC) pipe with a Standard Dimension Ratio (SDR) of 26 conforming to ASTM D2241 with gasket joints conforming to ASTM D3212. If PVC pipe

material per ASTM D2241 is not available, then an alternate material designation can be requested to the Engineer for approval. All supplied pipes and fittings must be from the same manufacturer. Connections to existing sewer lines shall be made using non-shear Fernco RC Series or Mission Flex-Seal adjustable repair couplings equipped with stainless steel bands. PVC tee and bends used for the drop connection shall be compatible for use with the sewer pipe.

The re-connection of existing services shall be done with a new PVC wye or tee fitting which will be fabricated to fit the main and the branch service pipe. All supplied fittings and connections must be from the same manufacturer. All connections to existing pipes shall be made with non-shear Fernco RC Series or Mission Flex–Seal adjustable repair couplings equipped with stainless steel bands.

Flow Control. Prior to beginning any work which would interrupt existing flows, Contractor and Engineer will determine whether temporary plugging of the sewer line may be an acceptable alternative to by-pass pumping of flows during this work. If Contractor opts to use plugging for flow control, Contractor assumes all responsibility for the consequences, and shall be solely liable for the cost of all clean-up and any other damages which may be sustained by property owners and tenants, stemming from sewer back-ups determined to be the result of, or attributable to, this work. Contractor shall monitor upstream conditions of the plugged sewer frequently, and shall take all action necessary to minimize surcharge conditions.

Where plugging is determined not to be prudent, bypass pumping shall be used for flow control. It may be necessary to divert all or a portion of the wastewater flow to a downstream manhole. The manner and method proposed to be employed by Contractor for bypass pumping (including a plan for all additional traffic control and protection which may be necessary) shall be reviewed and approved by Engineer prior to setting up the pumping operation. By-passed flows from the sanitary sewer shall not be discharged to a storm sewer or overland.

Method of Measurement. Trench backfill and bypass pumping will not be measured for payment but shall be considered as included in the cost of this item.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER REPAIR, REMOVE AND REPLACE, 8-INCH DIAMETER OR LESS and SANITARY SEWER REPAIR, REMOVE AND REPLACE, OVER 8-INCH DIAMETER.

PAY ITEM #92 – SANITARY MANHOLES

Description. This work consists of furnishing and installing a new sanitary manhole, including chimney seal, frame and self-sealing lid adjusted to finished grade, at the locations shown on the plans or as directed by the Engineer in accordance with the construction details provided in the plans. This work shall be in accordance with applicable portions of Section 602 of the Standard Specifications, with the following modifications:

No more than 5 feet of existing sewer main or service pipe shall be removed in order to set the new manhole structure. The ends of the removed pipes shall be made square and sound, to facilitate a good connection with proposed pipes stubbed out from the manhole. Connecting pipes shall be cut to exact length required. A neoprene rubber coupling, as manufactured by Mission Rubber Company, Fern Company, or equal, shall be used to secure each connection between existing and new sewer pipe. Couplings shall be the non-shear type, specifically sized for the materials being connected, and shall include two type C-305 stainless steel adjustable bands.

The Type 1 Frame, Closed Lid shall meet the requirements for sanitary manholes according to the Special Provision “Frames, Grates and Lids” described herein.

Basis of Payment. This work will be paid for at the contract unit price per each for SANITARY MANHOLES, of the diameter specified, and with the type of frame and lid specified.

PAY ITEM #93 – EXISTING PIPE TO BE ADJUSTED

Description. This work shall consist of adjusting existing pipes to meet the finished grade. The existing pipes are located in paved areas along the Addison Alley. The finished grade of the proposed pavement will either require shortening or extending the existing pipes. All fittings needed to make the adjustment will be included in this work. The pipes are missing an open lid cover. This work will also include furnishing and installing an open lid ocver to prevent future clogging.

Materials. Materials used to adjust the pipe shall be of the same kind. The open lid cover will be metal or of the same material as the pipe.

Method of Measurement. This work will be measured for payment in units of each pipe adjusted. The adjustments made to each pipe location will only be counted once for payment.

Basis of Payment. This work will be paid for at the contract unit price per each for EXISTING PIPE TO BE ADJUSTED, which price shall include all materials, labor, and equipment necessary to complete the work as described herein.

PAY ITEM #94 – GEOGRID

Description. This work shall consist of furnishing and installing a geogrid on the subgrade after the undercut has been completed as shown in the plans and construction details. The geogrid shall be composed of a single layer and integrally formed with triangular apertures and high-profile ribs exhibiting significant dimensional stability through all ribs and junctions of the geogrid structure. The geogrid shall maintain its reinforcement and aggregate confinement capabilities under repeated dynamic loads while in service. The geogrid shall also be resistant to ultraviolet degradation, damage under normal construction practices and all forms of biological and chemical degradation normally encountered in road construction.

The geogrid must meet all specifications described herein and cannot be installed without prior approval from the Engineer.

Materials. The geogrid shall be integrally formed through punching and drawing of extruded sheets of polypropylene. The geogrid shall be oriented in three substantially equilateral directions so the resulting ribs have a high degree of molecular orientation which continues at least in part through the mass of the integral node. The resulting geogrid structure shall have apertures that are triangular in shape, and shall have ribs with depth-to-width ratios greater than 1.0. The geogrid shall have typical characteristics shown in the table below, and shall be certified in writing by the manufacturer to meet these characteristics:

Properties	Longitudinal	Diagonal	General
Rib Pitch[2], mm (in)	60 (2.40)	60 (2.40)	
Rib shape			rectangular
Aperture shape			triangular
Junction Efficiency[3], %			93
Isotropic Stiffness Ratio[4,9]			0.6
Overall Flexural Rigidity[5], mg-cm			2,000,000
Radial stiffness at low strain[6,9], kN/m @ 0.5% strain (lb/ft @ 0.5% strain)			350 (23,989)
Resistance to chemical degradation[6]			100%
Resistance to ultra-violet light and weathering[7]			70%

1. Unless indicated otherwise, values shown are minimum average roll values (MARVs) determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. Load transfer capability determined in accordance with ASTM D6637-10 and ASTM D7737-11 and expressed as a percentage of ultimate tensile strength.
4. The ratio between the minimum and maximum observed values of radial stiffness at 0.5% strain, measured on rib and midway between rib directions.
5. Determined in accordance with ASTM D7748-12.
6. Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-10.
7. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
8. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.
9. Isotropic stiffness ratio and radial stiffness values at 0.5% strain are both preliminary estimates and are subject to change.

The product, TX190L from Tensar International Corp., or approved equal, can be used to meet the material specifications described above. Alternate geogrid materials may be considered if they meet or exceed the design criteria of the project. Such materials must be pre-approved in writing by the Engineer.

Delivery, Storage and Handling. Prevent excessive mud, wet concrete, epoxy or other deleterious materials from coming in contact with and affixing to the geogrid. Store the geogrid at temperatures above -20 degrees F (-29 degrees C). The rolled geogrid may be laid flat or stood on end, but should not be left directly exposed to sunlight for more than 6 months or as recommended by the manufacturer. Any damage caused to geogrid by negligence of Contractor shall be replaced at Contractor's own expense.

Installation. The geogrid shall be installed in accordance with the specifications and installation guidelines provided by the manufacturer, or as directed by the Engineer, at the proper elevation and alignment as shown on the plans. The geogrid may be temporarily secured in place with ties, staples,

pins, sand bags or backfill as directed by the Engineer. Aggregate shall be placed according to the special provision "Aggregate Subgrade Improvement". The aggregate shall be placed, spread and compacted in such a manner that minimizes the development of wrinkles in the geogrid and/or movement of the geogrid. A minimum loose aggregate thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the aggregate base material and damaging the geogrid. When underlying subgrade is trafficable with minimal rutting, rubber-tired equipment may pass directly over the geogrid reinforcement at slow speeds (less than 5 mph). Sudden braking and sharp turning movements shall be avoided.

Method of Measurement. Geogrid will be measured for payment in place and the area computed in square yards. No allowance will be made for overlap, splices or material cut off or wasted. Different manufacturer's overlap and splicing requirements for the intended application may vary.

Basis of Payment. This work will be paid for at the contract unit price per square yard for GEOGRID.

PAY ITEM #95 – REMOVE AND REINSTALL LANDSCAPING ITEM

Description. This work shall consist of the removal and reinstallation of existing landscaping items in order to install the proposed curb and gutter, driveway, sidewalk, or trench for underground utilities, at locations shown on the plans or as directed by the Engineer. Landscaping items are defined, but not limited to, as any feature used in landscaping such as retaining blocks or bricks, wooden planters, or decorative fencing that is not permanently supported by a concrete foundation.

The Contractor shall record the locations, shapes, colors, and sizes of the landscaping items prior to removal. The Contractor shall remove and store the existing landscaping items or give the option to the property owner to store their landscaping items prior to beginning excavation. Any landscaping items damaged by the Contractor shall be replaced by the Contractor at Contractor's own expense.

The landscaping items shall be reinstalled during the final landscaping phase of the project. The landscaping items shall be installed as shown on the plans or as directed by the Engineer. If additional landscaping items are required, they shall meet the requirements described above, and shall be included in the cost of REMOVE AND REINSTALL LANDSCAPING ITEM.

If there are landscaping items remaining after completion of the work, the surplus items shall be offered to the homeowner. If the homeowner does not want the surplus items, the Contractor shall dispose of them properly off-site.

Method of Measurement. This work will be measured for payment by linear foot of landscaping items removed. The removal and reinstallation of landscaping items is considered as one occurrence. If additional landscaping items are needed to complete the work, the additional items will be measured for payment by linear foot.

Basis of Payment. This work will be paid for at the contract unit price per foot for REMOVE AND REINSTALL LANDSCAPING ITEM, which price shall include all materials, labor, and equipment necessary to complete the work as described herein.

PAY ITEM #96 – WATER USAGE DEDUCTION

Description. Pay items are provided as a part of this contract for the purpose of documenting the quantity of water obtained from the Village by the Contractor.

If the Contractor elects to obtain water from the Village, the Contractor shall comply with the Special Provision USE OF FIRE HYDRANTS. The quantity of water obtained from the Village by the Contractor shall be deducted from the contract as WATER USAGE DEDUCTION, and shall be credited to the contract as WATER USAGE CREDIT.

The WATER USAGE DEDUCTION pay item for this contract has been established with a unit of measurement in thousands of gallons (TGAL), a quantity of one-hundred (100.00), and a contract unit price of a deduction of eight dollars and eighty-five cents ($8.85), for a total WATER USAGE DEDUCTION contract price of a deduction of eight-hundred eighty-five dollars and no cents ($885.00). Bidder, in submitting a bid, accepts the quantity, contract unit price, and total contract price of the WATER USAGE DEDUCTION pay item.

Method of Measurement. Water usage will be measured as the actual quantity of water obtained from the Village by the Contractor, which quantity shall be rounded up to the nearest 1,000 gallons.

Basis of Payment. The water usage deduction will be deducted at the contract unit price per thousand gallons (TGAL) for WATER USAGE DEDUCTION. The quantity deducted as WATER USAGE DEDUCTION will be equal to the quantity paid for as WATER USAGE CREDIT.

PAY ITEM #97 – WATER USAGE CREDIT

Description. Pay items are provided as a part of this contract for the purpose of documenting the quantity of water obtained from the Village by the Contractor.

If the Contractor elects to obtain water from the Village, the Contractor shall comply with the Special Provision USE OF FIRE HYDRANTS. The quantity of water obtained from the Village by the Contractor shall be deducted from the contract as WATER USAGE DEDUCTION, and shall be credited to the contract as WATER USAGE CREDIT.

The WATER USAGE CREDIT pay item for this contract has been established with a unit of measurement in thousands of gallons (TGAL), a quantity of one-hundred (100.00), and a contract unit price of eight dollars and eighty-five cents ($8.85), for a total WATER USAGE CREDIT contract price of eight-hundred eighty-five dollars and no cents ($885.00). Bidder, in submitting a bid, accepts the quantity, contract unit price, and total contract price of the WATER USAGE CREDIT pay item.

Method of Measurement. Water usage will be measured as the actual quantity of water obtained from the Village by the Contractor, which quantity shall be rounded up to the nearest 1,000 gallons.

Basis of Payment. The water usage credit will be paid for at the contract unit price per thousand gallons (TGAL) for WATER USAGE CREDIT. The quantity paid for as WATER USAGE CREDIT will be equal to the quantity deducted as WATER USAGE DEDUCTION.

PAY ITEM #98 – CONTINGENCY ALLOWANCE

Description. A contingency allowance pay item is provided as a part of this contract for the purpose of facilitating the completion of unforeseen or additional work not included in the contract as awarded, and which is determined by the Engineer to be necessary and germane to the contract.

Use of the contingency allowance will be at the discretion of the Engineer. The Engineer may, at his/her discretion, use the contingency allowance for any of the following reasons:

(a) Facilitate a temporary payment allowance to the Contractor for work completed under existing contract pay items and for which completed quantities exceed contract quantities;

(b) Facilitate a temporary payment allowance to the Contractor for work completed beyond the scope of existing contract pay items; or

(c) Facilitate a temporary payment allowance to the Contractor for the purchase of equipment, materials or such other requisition as Engineer determines to be necessary for the completion of the Work.

Such use of the CONTINGENCY ALLOWANCE will be further subject to approval by Owner. Owner's decision with regard to use of the CONTINGENCY ALLOWANCE will be final.

A. Any payments made to Contractor under the CONTINGENCY ALLOWANCE will be considered temporary, and will only be retained by Contractor until such time that an authorization of contract changes can be approved and incorporated into the contract.

B. Contractor, in accepting payments made under the CONTINGENCY ALLOWANCE, agrees to the terms of this and other applicable special provisions. Contractor agrees to relinquish any monies and any claim to monies paid under the CONTINGENCY ALLOWANCE upon approval of an authorization of contract changes and payment for any work for which payment was previously made under the CONTINGENCY ALLOWANCE. Contractor further agrees to return any monies previously paid thereunder.

C. The CONTINGENCY ALLOWANCE pay item for this contract has been established with a unit of measurement in dollars, a quantity of 50,000, and a contract unit price of one dollar ($1.00), for a total CONTINGENCY ALLOWANCE contract price of Thirty Thousand dollars and no cents ($30,000.00). Bidder, in submitting a bid, accepts the quantity, unit price, and total contract price of the CONTINGENCY ALLOWANCE.

Basis of Payment. This work will be paid for at the contract unit price per dollar for CONTINGENCY ALLOWANCE. The total bid amount for this item will be $30,000.00.

APPENDIX 1

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS
CHECK SHEET FOR RECURRING SPECIAL PROVISIONS
BDE SPECIAL PROVISIONS
LOCAL ROADS 1 PROVISIONS
DUPAGE COUNTY PREVAILING WAGES

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2020

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

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 4-1-16) (Revised 1-1-20)

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Illinois Department of Transportation

Check Sheet for Recurring Special Provisions

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BDE SPECIAL PROVISIONS
For the April 24, 2020 and June 12, 2020 Lettings

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

	File Name	#		Special Provision Title	Effective	Revised
*	80099	1	☐	Accessible Pedestrian Signals (APS)	April 1, 2003	April 1, 2020
	80274	2	☐	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
	80192	3	☐	Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	4	☐	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80426	5	☐	Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	
	80241	6	☐	Bridge Demolition Debris	July 1, 2009	
	5026I	7	☐	Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I	8	☐	Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I	9	☐	Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I	10	☐	Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80425	11	☐	Cape Seal	Jan. 1, 2020	
	80384	12	☐	Compensable Delay Costs	June 2, 2017	April 1, 2019
	80198	13	☐	Completion Date (via calendar days)	April 1, 2008	
	80199	14	☐	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293	15	☐	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
	80311	16	☐	Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
	80277	17	☐	Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
	80261	18	☑	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80387	19	☐	Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
	80029	20	☐	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	March 2, 2019
	80402	21	☐	Disposal Fees	Nov. 1, 2018	
	80378	22	☑	Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
	80405	23	☐	Elastomeric Bearings	Jan. 1, 2019	
	80421	24	☐	Electric Service Installation	Jan. 1, 2020	
	80415	25	☐	Emulsified Asphalts	Aug. 1, 2019	
	80423	26	☐	Engineer's Field Office and Laboratory	Jan. 1, 2020	
	80388	27	☐	Equipment Parking and Storage	Nov. 1, 2017	
	80229	28	☐	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80417	29	☐	Geotechnical Fabric for Pipe Underdrains and French Drains	Nov. 1, 2019	
	80420	30	☐	Geotextile Retaining Walls	Nov. 1, 2019	
	80304	31	☐	Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
	80422	32	☐	High Tension Cable Median Barrier Reflectors	Jan. 1, 2020	
	80416	33	☐	Hot-Mix Asphalt – Binder and Surface Course	July 2, 2019	Nov. 1, 2019
	80398	34	☑	Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Nov. 1, 2019
*	80406	35	☐	Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT Data Collection)	Jan. 1, 2019	Jan. 2, 2020
	80347	36	☐	Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 2, 2019
	80383	37	☐	Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	July 2, 2019
	80411	38	☐	Luminaires, LED	April 1, 2019	
	80393	39	☑	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	March 1, 2019
	80045	40	☐	Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80418	41	☐	Mechanically Stabilized Earth Retaining Walls	Nov. 1, 2019	
	80424	42	☐	Micro-Surfacing and Slurry Sealing	Jan. 1, 2020	
*	80428	43	☐	Mobilization	April 1, 2020	
	80165	44	☐	Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80412	45	☐	Obstruction Warning Luminaires, LED	Aug. 1, 2019	
	80349	46	☐	Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016

	80371	47	☐	Pavement Marking Removal	July 1, 2016	
	80389	48	☑	Portland Cement Concrete	Nov. 1, 2017	
	80359	49	☐	Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2019
	80300	50	☐	Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	3426I	51	☐	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	52	☐	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
*	80306	53	☐	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2020
	80407	54	☐	Removal and Disposal of Regulated Substances	Jan. 1, 2019	Jan. 1, 2020
*	80419	55	☐	Silt Fence, Inlet Filters, Ground Stabilization and Riprap Filter Fabric	Nov. 1, 2019	April 1, 2020
	80395	56	☐	Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
	80340	57	☐	Speed Display Trailer	April 2, 2014	Jan. 1, 2017
	80127	58	☐	Steel Cost Adjustment	April 2, 2004	Aug. 1, 2017
	80408	59	☐	Steel Plate Beam Guardrail Manufacturing	Jan. 1, 2019	
	80413	60	☐	Structural Timber	Aug. 1, 2019	
	80397	61	☑	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	62	☐	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80317	63	☐	Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	Aug. 1, 2019
	80298	64	☐	Temporary Pavement Marking	April 1, 2012	April 1, 2017
	80403	65	☐	Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
	80409	66	☑	Traffic Control Devices - Cones	Jan. 1, 2019	
	80410	67	☐	Traffic Spotters	Jan. 1, 2019	
	20338	68	☐	Training Special Provisions	Oct. 15, 1975	
	80318	69	☐	Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
*	80429	70	☐	Ultra-Thin Bonded Wearing Course	April 1, 2020	
	80288	71	☑	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	72	☐	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
*	80414	73	☐	Wood Fence Sight Screen	Aug. 1, 2019	April 1, 2020
*	80427	74	☑	Work Zone Traffic Control Devices	Mar. 2, 2020	
	80071	75	☐	Working Days	Jan. 1, 2002	

The following special provisions are in the 2020 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80404	Coarse Aggregate Quality for Micro-Surfacing and Cape Seals	Article 1004.01(b)	Jan. 1, 2019	
80392	Lights on Barricades	Articles 701.16, 701.17(c)(2) & 603.07	Jan. 1, 2018	
80336	Longitudinal Joint and Crack Patching	Check Sheet #36	April 1, 2014	April 1, 2016
80400	Mast Arm Assembly and Pole	Article 1077.03(b)	Aug. 1, 2018	
80394	Metal Flared End Section for Pipe Culverts	Articles 542.07(c) and 542.11	Jan. 1, 2018	April 1, 2018
80390	Payments to Subcontractors	Article 109.11	Nov. 2, 2017	

The following special provisions have been deleted from use.

File Name	Special Provision Title	Effective	Revised
80328	Progress Payments	Nov. 2, 2013	

The following special provisions require additional information from the designer. The additional information needs to be submitted as a separate document. The Project Coordination and Implementation section will then include the information in the applicable special provision.

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

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010
Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 [1/]	600-749	2002
	750 and up	2006
June 1, 2011 [2/]	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 [2/]	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

DOWEL BAR INSERTER (BDE)

Effective: January 1, 2017
Revised: January 1, 2018

Add the following to Article 420.03 of the Standard Specifications.

"(l) Mechanical Dowel Bar Inserter .....1103.20"

Revise the first paragraph of Article 420.05(b)(1) of the Supplemental Specifications to read:

"Preformed or Drilled Holes. If applicable, the tie bars shall be installed after the dowel bars have been tested with the MIT Scan-2 device according to Article 420.05(c)(2)b.2. The tie bars shall be installed with a nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows."

Revise Article 420.05(c) of the Standard Specifications to read:

"(c) Transverse Contraction Joints. Transverse contraction joints shall consist of planes of weakness created by sawing grooves in the surface of the pavement and shall include load transfer devices consisting of dowel bars. Transverse contraction joints shall be according to the following."

Revise Article 420.05(c)(2) of the Standard Specifications to read:

"(2) Dowel Bars. Dowel Bars shall be installed parallel to the centerline of the pavement and parallel to the proposed pavement surface. Installation shall be according to one of the following methods.

a. Dowel Bar Assemblies. The assembly shall act as a rigid unit with each component securely held in position relative to the other members of the assembly. The entire assembly shall be held securely in place by means of nails which shall penetrate the stabilized subbase. At least ten nails shall be used for each 10, 11, or 12 ft (3, 3.3, or 3.6 m) section of assembly.

Metal stakes shall be used instead of nails, with soil or granular subbase. The stakes shall loop over or attach to the top parallel spacer bar of the assembly and penetrate the subgrade or subbase at least 12 in. (300 mm).

At the location of each dowel bar assembly, the subgrade or subbase shall be reshaped and re-tamped when necessary.

Prior to placing concrete, any deviation of the dowel bars from the correct horizontal or vertical alignment (horizontal skew or vertical tilt) greater than 3/8 in. in 12 in (9 mm in 300 mm) shall be corrected and a light coating of oil shall be uniformly applied to all dowel bars.

Care shall be exercised in depositing the concrete at the dowel bar assemblies so the horizontal and vertical alignment will be retained.

b. Dowel Bar Insertion. The dowel bars may be placed in the pavement slab with a mechanical dowel bar inserter (DBI) attached to a formless paver for pavements ≥ 7.0 in. (175 mm) in thickness. A light coating of oil shall be uniformly applied to all dowel bars.

The DBI shall insert the dowel bars with vibration into the plastic concrete after the concrete has been struck off and consolidated without deformation of the slab. After the bars have been inserted, the concrete shall be refinished and no voids shall exist around the dowel bars. The forward movement of the paver shall not be interrupted by the inserting of the dowel bars.

The location of each row of dowel bars shall be marked in a manner to facilitate where to insert the bars, and where to saw the transverse joint.

1. Placement Tolerances for Dowel Bars. The DBI shall place the dowel bars in the concrete pavement within the following tolerances.

(a.) Longitudinal Translation (Mislocation). Longitudinal translation (mislocation) shall be defined as the position of the center of the dowel bar along the longitudinal axis, in relation to the sawed joint.

The quality control tolerance for longitudinal translation shall not exceed 2.0 in (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having two or more dowel bars with an embedment length less than 4.0 in. (100 mm) within 12 in. (300 mm) of the same wheelpath will be considered unacceptable. The left and right wheelpaths shall be determined by excluding the middle 2.5 ft (0.8 m) of the pavement lane, and by excluding the outer 1.0 ft (0.3 m) measured from each pavement lane edge. Any joint having an average dowel bar embedment length less than 5.25 in. (130 mm) will also be considered unacceptable. Embedment length shall be defined as the length of dowel bar embedded on the short side of the sawed joint. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(b.) Horizontal Translation (Mislocation). Horizontal translation (mislocation) shall be defined as the difference in the actual dowel bar location parallel to the longitudinal or edge joint from its theoretical position as shown on the plans.

The quality control tolerance for horizontal translation shall not exceed 2.0 in. (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a translation greater than 4.0 in. (100 mm) will be considered unacceptable, but may remain in place unless the Engineer determines the joint will not function. If the joint is unable to remain in place, the joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(c.) Vertical Translation (Mislocation). Vertical translation (mislocation) shall be defined as the difference in the vertical position of the dowel bar relative to the theoretical midpoint of the slab.

The quality control tolerance for vertical translation shall be as shown in the following table. If these tolerances are exceeded, adjustments shall be made to the paving operation.

Pavement Thickness	Dowel Bar Diameter	Vertical Translation Tolerance Above Midpoint	Vertical Translation Tolerance Below Midpoint
≥7 in. to <8 in. (≥175 mm to <200 mm)	1.25 in. (31 mm)	0.25 in. (6 mm)	0.5 in. (13 mm)
≥8 in. to <9 in. (≥200 mm to <225 mm)	1.50 in. (38 mm)	0.25 in. (6 mm)	0.5 in. (13 mm)
≥9 in. to <10 in. (≥225 mm to <250 mm)	1.50 in. (38 mm)	0.75 in. (19 mm)	0.75 in. (19 mm)
≥10 in. (≥250 mm)	1.50 in. (38 mm)	0.75 in. (19 mm)	1.0 in. (25 mm)

Any joint having a dowel bar with top concrete cover less than T/3, where T is slab thickness, will be considered unacceptable. Any joint having 2 or more dowel bars with bottom concrete cover less than 2.0 in. (50 mm) will also be considered unacceptable. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement according to Section 442 for Class B patches.

(d.) Vertical Tilt or Horizontal Skew (Misalignment). Vertical tilt or horizontal skew (misalignment) shall be defined as the difference in position of the dowel bar ends with respect to each other. Vertical tilt is measured in the vertical axis whereas horizontal skew is measured in the horizontal axis. Misalignment shall be measured in terms of a joint score. The joint score shall be defined as the degree of misalignment evaluated for a single

transverse joint for each lane of pavement. The joint score shall be determined as follows:

$$Joint\ Score = \left(1 + \left(\frac{x}{x-n}\right)\sum_{i=1}^{x-n} W_i\right)$$

where:

W_i = weighting factor (Table 1) for dowel *i*
x = number of dowels in a single joint
n = number of dowels excluded from the joint score calculation due to measurement interference

Single Dowel Misalignment – The degree of misalignment applicable to a single dowel bar, calculated as:

$$Single\ Dowel\ Misalignment = \sqrt{(Horizontal\ Skew)^2 + (Vertical\ Tilt)^2}$$

Table 1. Weighting Factors in Joint Score Determination	
Single Dowel Bar Misalignment (SDM)	W, Weighting Factor
SDM ≤ 0.6 in. (15 mm)	0
0.6 in. (15 mm) < SDM ≤ 0.8 in. (20 mm)	2
0.8 in. (20 mm) < SDM ≤ 1 in. (25 mm)	4
1 in. (25 mm) < SDM ≤ 1.5 in. (38 mm)	5
1.5 in. (38 mm) < SDM	10

The quality control tolerance for vertical tilt or horizontal skew shall not exceed 0.6 in. (15 mm). If the tolerance is exceeded for either one, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a vertical tilt or horizontal skew greater than 1.5 in. (38 mm) shall be cut. If more than one dowel bar is required to be cut in the joint, the joint will be considered unacceptable and shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

Single dowel bar misalignment shall be controlled to provide the joint scores shown in the following table.

Number of Dowel Bars in the Joint	Maximum Joint Score
< 5	4
≥ 5 but ≤ 9	8
> 9	12

A joint score greater than the specified maximum will be considered locked. Three consecutive joints with a score greater than the specified maximum total score will all be considered unacceptable.

Three consecutive locked joints shall be corrected by selecting one joint and cutting a dowel bar. Preference shall be given to cutting a dowel bar within the middle 2.5 ft (0.8 m) of the pavement lane to avoid the wheelpaths. If none of the three locked joints will have a joint score less than or equal to the specified maximum after selecting one dowel bar to cut, one of the joints shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(e.) For unacceptable work, the Contractor may propose alternative repairs for consideration by the Engineer.

2. Testing of Dowel Bar Placement. The placement of the dowel bars shall be tested within 24 hours of paving with a calibrated MIT Scan-2 device according to "Use of Magnetic Tomography Technology to Evaluate Dowel Placement" (Publication No. FHWA-IF-06-006) by the Federal Highway Administration.

   A trained operator shall perform the testing, and all testing shall be performed in the presence of the Engineer. The device shall be calibrated to the type and size dowel bar used in the work according to the manufacturer's instructions. Calibration documentation shall be provided to the Engineer prior to construction. The device shall be recalibrated and/or validate readings as required by the Engineer. The device may be utilized as a process control and make necessary adjustments to ensure the dowel bars are placed in the correct location.

   (a.) Test Section. Prior to start of production paving, a test section consisting of 30 transverse joints shall be constructed. The test section may be performed on the actual pavement, but production paving shall not begin until an acceptable test section has been constructed. The test section will be considered acceptable when all of the following are met:

      (1.) 90 percent of the dowel bars meet the quality control tolerance for longitudinal, horizontal, or vertical translation (mislocation);

      (2.) 90 percent of the dowel bars meet the quality control tolerance for vertical tilt or horizontal skew deviation (misalignment); and

      (3.) none of the joints are considered unacceptable prior to a corrective measure for mislocation or misalignment.

If the test section fails, another test section consisting of 30 joints shall be constructed.

The test section requirement may be waived by the Engineer if the Contractor has constructed an acceptable test section and successfully used the DBI on a Department contract within the same calendar year.

(b.) Production Paving. After the test section is approved, production paving may begin. The mislocation and misalignment of each dowel bar for the first ten joints constructed, and every tenth joint thereafter, shall be tested.

If two consecutive days of paving result in 5 percent or more of the joints on each day being unacceptable prior to a corrective measure, production paving shall be discontinued and a new test section shall be constructed.

If any joint is found to be unacceptable prior to a corrective measure, testing of additional joints on each side of the unacceptable joint shall be performed until acceptable joints are found.

(c.) Test Report. Test reports shall be provided to the Engineer within two working days of completing each day's testing. The test report shall include the following.

(1.) Contract number, placement date, county-route-section, direction of traffic, scan date, Contractor, and name of individual performing the tests.

(2.) Provide the standard report generated from the on-board printer of the imaging technology used for every dowel and joint measured.

(3.) For every dowel measured, provide the joint identification number, lane number and station, dowel bar number or x-location, direction of testing and reference joint location/edge location, longitudinal translation, horizontal translation, vertical translation, vertical tilt, and horizontal skew.

(4.) Identify each dowel bar with a maximum longitudinal, horizontal, or vertical translation that has been exceeded. Identify each dowel bar with a maximum vertical tilt or horizontal skew deviation that has been exceeded.

(5.) Joint Score Details: Provide the joint identification number, lane number, station, and calculated joint score for each joint.

(6.) Locked Joint Identification: Identify each joint where the maximum joint score is exceeded.

(d.) Exclusions. Exclude the following from dowel bar mislocation and misalignment measurements.

(1.) Transverse construction joints (headers).

(2.) Dowel bars within 24 in. (610 mm) of metallic manholes, inlets, metallic castings, or other nearby or underlying steel reinforced objects.

(3.) The outside dowel bar when tie bars are installed with mechanical equipment in fresh concrete. For tie bar installations involving preformed or drilled holes, installation of the tie bar shall be performed after testing with the MIT Scan-2 device.

(4.) Joints located directly under high voltage power lines.

(5.) Subject to the approval of the Engineer, any other contributors to magnetic interference.

(e.) Deficiency Deduction. When the Contractor has cut 25 dowel bars to correct unacceptable joints, the Contractor shall be liable and shall pay to the Department a deficiency deduction of $500.00 for the cost of the bars. Thereafter, an additional deficiency deduction of $20.00 for each additional bar cut will be assessed."

Add the following to Section 1103 of the Standard Specifications.

"**1103.20 Mechanical Dowel Bar Inserter.** The mechanical dowel bar inserter (DBI) shall be self-contained and supported on the formless paver with the ability to move separately from the paver. The DBI shall be equipped with insertion forks along with any other devices necessary for finishing the concrete the full width of the pavement. The insertion forks shall have the ability to vibrate at a minimum frequency of 3000 VPM."

80378

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: August 1, 2018
Revised: November 1, 2019

Add the following to Article 406.02 of the Standard Specifications.

"(d) Longitudinal Joint Sealant (LJS) .....1032"

Add the following to Article 406.03 of the Standard Specifications.

"(k) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2)
(l) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3)

Note 2. When a pressure distributor is used to apply the LJS, the distributor shall be equipped with a heating and recirculating system along with a functioning auger agitating system or vertical shaft mixer in the hauling tank to prevent localized overheating. The distributor shall be equipped with a guide or laser system to aid in proper placement of the LJS application.

Note 3. When a melter kettle is used to transport and apply the LJS, the melter kettle shall be an oil jacketed double-boiler with agitating and recirculating systems. Material from the kettle may be dispensed through a pressure feed wand with an applicator shoe or through a pressure feed wand into a hand-operated thermal push cart."

Revise Article 406.06(g)(2) of the Standard Specifications to read:

"(2) Longitudinal Joints. Unless prohibited by stage construction, any HMA lift shall be complete before construction of the subsequent lift. The longitudinal joint in all lifts shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

When stage construction prohibits the total completion of a particular lift, the longitudinal joint in one lift shall be offset from the longitudinal joint in the preceding lift by not less than 3 in. (75 mm). The longitudinal joint in the surface course shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

A notched wedge longitudinal joint shall be used between successive passes of HMA binder course that has a difference in elevation of greater than 2 in. (50 mm) between lanes on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.

The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

Tack coat shall be applied to the entire surface of the notched wedge joint immediately prior to placing the adjacent lift of binder. The material shall be uniformly applied at a rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

When the use of longitudinal joint sealant (LJS) is specified, the surface to which the LJS is applied shall be thoroughly cleaned and dry. The LJS may be placed before or after the tack coat. When placed after the tack coat, the tack shall be fully cured prior to placement of the LJS.

The LJS shall be applied in a single pass with a pressure distributor, melter kettle, or hand applied from a roll. At the time of installation, the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (4 °C) and rising.

The LJS shall be applied at a width of 18 in. (450 mm) ± 1 1/2 in. (38 mm) and centered ± 2 in. (± 50 mm) under the joint of the next HMA lift to be constructed. If the LJS flows more than 2 in. (50 mm) from the initial placement width, LJS placement shall stop and remedial action shall be taken.

When starting another run of LJS placement, suitable release paper shall be placed over the previous application of LJS to prevent doubling up of thickness of LJS.

The application rate of LJS shall be according to the following.

LJS Application Table			
Overlay Thickness in. (mm)	Coarse Graded Application Rate 1/ (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75) lb/ft (kg/m)	Fine Graded Application Rate 1/ lb/ft (kg/m)	SMA Mixtures 1/ 2/
3/4 (19)	0.88 (1.31)		
1 (25)	1.15 (1.71)		
1 1/4 (32)	1.31 (1.95)	0.88 (1.31)	
1 1/2 (38)	1.47 (2.19)	0.95 (1.42)	1.26 (1.88)
1 3/4 (44)	1.63 (2.43)	1.03 (1.54)	1.38 (2.06)
2 (50)	1.80 (2.68)	1.11 (1.65)	1.51 (2.25)
≥ 2 1/4 (60)	1.96 (2.92)		

1/ The application rate has a surface demand for liquid included within it. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained.

2/ If the joint is between SMA and either Coarse Graded or Fine Graded, the SMA rate shall be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS shall be verified within the first 1000 ft (300 m) of the day's placement and every 12,000 ft (3600 m) thereafter. A suitable paper or pan shall be placed at a random location in the path of the LJS. After application of the LJS, the paper or pan shall be picked up, weighed, and the application rate calculated. The tolerance between the application rate shown in the LJS Application Table and the calculated rate shall be ± 10 percent. The LJS shall be replaced in the area where the sample was taken.

A 1 qt (1 L) sample shall be taken from the pressure distributor or melting kettle at the jobsite once for each contract and sent to the Central Bureau of Materials.

The LJS shall be suitable for construction traffic to drive on without pickup or tracking of the LJS within 30 minutes of placement. If pickup or tracking occurs, LJS placement shall stop and damaged areas shall be repaired.

Prior to paving, the Contractor shall ensure the paver end plate and grade control device is adequately raised above the finished height of the LJS.

The LJS shall not flush to the final surface of the HMA pavement."

Add the following paragraph after the second paragraph of Article 406.13(b) of the Standard Specifications.

"Application of longitudinal joint sealant (LJS) will be measured for payment in place in feet (meters)."

Add the following paragraph after the first paragraph of Article 406.14 of the Standard Specifications.

"Longitudinal joint sealant will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT."

Add the following to Section 1032 of the Standard Specifications.

"**1032.12 Longitudinal Joint Sealant (LJS).** Longitudinal joint sealant (LJS) will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Performance Graded Asphalt Binder Acceptance Procedure" with the following exceptions: Article 3.1.9 and 3.4.1.4 of the policy memorandum will be excluded. The bituminous material used for the LJS shall be according to the following table. Elastomers shall be added to a base asphalt and shall be either a styrene-butadiene diblock or triblock copolymer without oil extension, or a styrene-butadiene rubber. Air blown asphalt, acid modification, or other modifiers will not be allowed. LJS in the form of pre-formed rollout banding may also be used.

Test	Test Requirement	Test Method
Dynamic shear @ 88°C (unaged), G*/sin δ, kPa	1.00 min.	AASHTO T 315
Creep stiffness @ -18°C (unaged), Stiffness (S), MPa m-value	300 max. 0.300 min.	AASHTO T 313
Ash, %	1.0 – 4.0	AASHTO T 111
Elastic Recovery, 100 mm elongation, cut immediately, 25°C, %	70 min.	ASTM D 6084 (Procedure A)
Separation of Polymer, Difference in °C of the softening point (ring and ball)	3 max.	ITP Separation of Polymer from Asphalt Binder”

80398

MANHOLES, VALVE VAULTS, AND FLAT SLAB TOPS (BDE)

Effective: January 1, 2018
Revised: March 1, 2019

Description. In addition to those manufactured according to the current standards included in this contract, manholes, valve vaults, and flat slab tops manufactured prior to March 1, 2019, according to the previous Highway Standards listed below will be accepted on this contract:

Product	Previous Standards		
Precast Manhole Type A, 4' (1.22 m) Diameter	602401-05	602401-04	602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402-01	602402	602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-09	602406-08	602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-07	602411-06	602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-07	602416-06	602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-07	602421-06	602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426-01	602426	
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-04	602501-03	602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506-01	602506	602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05	602601-04	

The following revisions to the Standard Specifications shall apply to manholes, valve vaults, and flat slab tops manufactured according to the current standards included in this contract:

Revise Article 602.02(g) of the Standard Specifications to read:

"(g) Structural Steel (Note 4) 1006.04

Note 4. All components of the manhole joint splice shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable."

Add the following to Article 602.02 of the Standard Specifications:

"(s) Anchor Bolts and Rods (Note 5) 1006.09

Note 5. The threaded rods for the manhole joint splice shall be according to the requirements of ASTM F 1554, Grade 55, (Grade 380)."

Revise the second paragraph of Article 1042.10 of the Standard Specifications to read:

"Catch basin Types A, B, C, and D; Manhole Type A; Inlet Types A and B; Drainage Structures Types 1, 2, 3, 4, 5, and 6; Valve Vault Type A; and reinforced concrete flat slab top (Highway Standard 602601) shall be manufactured according to AASHTO M 199 (M 199M), except as shown on the plans. Additionally, catch basins, inlets, and drainage structures shall have a minimum concrete compressive strength of 4500 psi (31,000 kPa) at 28 days and manholes,

valve vaults, and reinforced concrete flat slab tops shall have a minimum concrete compressive strength of 5000 psi (34,500 kPa) at 28 days.”

80393

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2017

Revise the Air Content % of Class PP Concrete in Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA		
Class of Conc.	Use	Air Content %
PP	Pavement Patching Bridge Deck Patching (10)	
	PP-1	4.0 - 8.0"
	PP-2	
	PP-3	
	PP-4	
	PP-5	

Revise Note (4) at the end of Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"(4) For all classes of concrete, the maximum slump may be increased to 7 in (175 mm) when a high range water-reducing admixture is used. For Class SC, the maximum slump may be increased to 8 in. (200 mm). For Class PS, the maximum slump may be increased to 8 1/2 in. (215 mm) if the high range water-reducing admixture is the polycarboxylate type."

80389

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

"**109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.** The Contractor shall report all payments made to the following parties:

(a) first tier subcontractors;

(b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;

(c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

The report shall be made through the Department's on-line subcontractor payment reporting system within 21 days of making the payment."

80397

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

"(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts."

Revise Article 1106.02(b) of the Standard Specifications to read:

"(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer's specifications such that they are not moved by wind or passing traffic."

80409

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012
Revised: April 1, 2016

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(11) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

"(q) Temporary Sign Supports .....1106.02"

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

"For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer's specifications."

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

"**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer's self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device."

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

"**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact

attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019."

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

"(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis."

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State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

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

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

Village of Villa Park

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

Exhibit A

Illinois Department of Labor

Division of Conciliation and Mediation

DuPage County Prevailing Wages

PREVAILING WAGE RATES FOR DUPAGE COUNTY

Effective Date	County	Trade Title	Region	Type	Class	Base Wage	Foreman Wage	OT M-F	OT Sa	OT Su	OT Hol	H/W	Pension	Vacation	Training	Other Fringe Benefit
11/23/2018	DuPage	ASBESTOS ABT-GEN	All	ALL		42.72	43.72	1.5	1.5	2	2	14.9	12.57	0	0.72	0
11/5/2018	DuPage	ASBESTOS ABT-MEC	All	BLD		37.88	40.38	1.5	1.5	2	2	12.92	11.82	0	0.72	0
8/15/2018	DuPage	BOILERMAKER	All	BLD		49.46	53.91	2	2	2	2	6.97	20.41	0	0.4	0
11/16/2018	DuPage	BRICK MASON	All	BLD		46.19	50.81	1.5	1.5	2	2	10.65	17.92	0	0.92	0
1/11/2019	DuPage	CARPENTER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.41	0	0.63	0
4/5/2019	DuPage	CEMENT MASON	All	ALL		45.25	47.25	2	1.5	2	2	14.25	18.03	0	1.1	0
8/15/2018	DuPage	CERAMIC TILE FNSHER	All	BLD		39.56	39.56	1.5	1.5	2	2	10.75	12.02	0	0.77	0
11/5/2018	DuPage	COMMUNICATION TECH	All	BLD		33.82	36.62	1.5	1.5	2	2	12.35	20.39	1.89	0.68	0
8/15/2018	DuPage	ELECTRIC PWR EQMT OP	All	ALL		42.59	57.95	1.5	1.5	2	2	5.75	13.21	0	0.75	0
8/15/2018	DuPage	ELECTRIC PWR EQMT OP	ALL	HWY		41.45	56.38	1.5	1.5	2	2	5.5	12.87	0	0.73	
4/5/2019	DuPage	ELECTRIC PWR GRNDMAN	All	ALL		32.86	57.95	1.5	1.5	2	2	5.75	10.2	0	0.58	0
8/15/2018	DuPage	ELECTRIC PWR GRNDMAN	ALL	HWY		32	56.38	1.5	1.5	2	2	5.5	9.92	0	0.66	
10/26/2018	DuPage	ELECTRIC PWR LINEMAN	All	ALL		51.06	57.95	1.5	1.5	2	2	5.75	15.85	0	0.9	0
8/15/2018	DuPage	ELECTRIC PWR LINEMAN	ALL	HWY		49.67	56.38	1.5	1.5	2	2	5.5	15.4	0	0.88	
8/15/2018	DuPage	ELECTRIC PWR TRK DRV	All	ALL		34.03	57.95	1.5	1.5	2	2	5.75	10.55	0	0.6	0
8/15/2018	DuPage	ELECTRIC PWR TRK DRV	ALL	HWY		33.14	56.38	1.5	1.5	2	2	5.5	10.29	0	0.59	
11/5/2018	DuPage	ELECTRICIAN	All	BLD		40.5	44.5	1.5	1.5	2	2	12.35	23	5.25	0.75	0
4/5/2019	DuPage	ELEVATOR CONSTRUCTOR	All	BLD		54.85	61.71	2	2	2	2	15.43	9.71	4.38	0.61	0
4/5/2019	DuPage	FENCE ERECTOR	NE	ALL		40.88	42.88	1.5	1.5	2	2	13.59	14.5	0	0.65	0
8/15/2018	DuPage	FENCE ERECTOR	W	ALL		45.06		1.5	1.5	1.5	1.5	10.52	20.76	0	0.7	0
2/8/2019	DuPage	GLAZIER	All	BLD		43.85	45.35	1.5	2	2	2	14.17	21.11	0	0.94	0
11/5/2018	DuPage	HT/FROST INSULATOR	All	BLD		50.5	53	1.5	1.5	2	2	12.92	13.16	0	0.72	0
8/15/2018	DuPage	IRON WORKER	E	ALL		48.33	51.83	2	2	2	2	14.15	23.28	0	0.35	0
4/5/2019	DuPage	IRON WORKER	W	ALL		45.84	49.51	2	2	2	2	11.77	22.9	0	0.83	0
4/5/2019	DuPage	LABORER	All	ALL		42.72	43.47	1.5	1.5	2	2	14.9	12.57	0	0.72	0
8/15/2018	DuPage	LATHER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.41	0	0.63	0
8/15/2018	DuPage	MACHINIST	All	BLD		48.38	50.88	1.5	1.5	2	2	7.23	8.95	1.85	1.47	0
8/15/2018	DuPage	MARBLE FINISHERS	All	ALL		34.65	47.7	1.5	1.5	2	2	10.65	16.46	0	0.49	0
8/15/2018	DuPage	MARBLE MASON	All	BLD		45.43	49.97	1.5	1.5	2	2	10.65	17.39	0	0.61	0
4/5/2019	DuPage	MATERIAL TESTER I	All	ALL		32.72	32.72	1.5	1.5	2	2	14.9	12.57	0	0.72	0
10/26/2018	DuPage	MATERIALS TESTER II	All	ALL		37.72	37.72	1.5	1.5	2	2	14.9	12.57	0	0.72	0
4/5/2019	DuPage	MILLWRIGHT	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.41	0	0.63	0
2/15/2019	DuPage	OPERATING ENGINEER	All	BLD	1	51.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
2/15/2019	DuPage	OPERATING ENGINEER	All	BLD	2	49.8	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	OPERATING ENGINEER	All	BLD	3	47.25	55.1	2	2	2	2	19.65	15.1	2	1.4	0
4/5/2019	DuPage	OPERATING ENGINEER	All	BLD	4	45.5	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	OPERATING ENGINEER	All	BLD	5	54.85	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	OPERATING ENGINEER	All	BLD	6	52.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
4/5/2019	DuPage	OPERATING ENGINEER	All	BLD	7	54.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
11/9/2018	DuPage	OPERATING ENGINEER	All	FLT		38	38	1.5	1.5	2	2	18.8	14.35	2	1.3	0
12/28/2018	DuPage	OPERATING ENGINEER	All	HWY	1	49.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
11/9/2018	DuPage	OPERATING ENGINEER	All	HWY	2	48.75	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0

PREVAILING WAGE RATES FOR DUPAGE COUNTY

Effective Date	County	Trade Title	Region	Type	Class	Base Wage	Foreman Wage	OT M-F	OT Sa	OT Su	OT Hol	H/W	Pension	Vacation	Training	Other Fringe Benefit
11/9/2018	DuPage	OPERATING ENGINEER	All	HWY	3	46.7	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	OPERATING ENGINEER	All	HWY	4	45.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
11/9/2018	DuPage	OPERATING ENGINEER	All	HWY	5	44.1	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	OPERATING ENGINEER	All	HWY	6	52.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
11/9/2018	DuPage	OPERATING ENGINEER	All	HWY	7	50.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	DuPage	ORNAMNTL IRON WORKER	E	ALL		48.05	50.55	2	2	2	2	14.09	20.59	0	1.25	0
8/15/2018	DuPage	ORNAMNTL IRON WORKER	W	ALL		45.06	48.66	2	2	2	2	10.52	20.76	0	0.7	
4/5/2019	DuPage	PAINTER	All	ALL		45.28	47.28	1.5	1.5	1.5	1.5	11.55	8.2	0	1.35	0
8/15/2018	DuPage	PAINTER SIGNS	All	BLD		38.2	43.25	1.5	1.5	2	2	2.6	3.25	0	0	0
8/15/2018	DuPage	PILEDRIVER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.41	0	0.63	0
11/16/2018	DuPage	PIPEFITTER	All	BLD		48.5	51.5	1.5	1.5	2	2	10.05	18.85	0	2.54	0
11/5/2018	DuPage	PLASTERER	ALL	BLD		43.25	45.85	1.5	1.5	2	2	14.25	16.69	0	1.45	0
10/26/2018	DuPage	PLUMBER	All	BLD		50.25	53.25	1.5	1.5	2	2	14.34	14.42	0	1.31	0
4/5/2019	DuPage	ROOFER	All	BLD		43.65	47.65	1.5	1.5	2	2	9.73	12.44	0	0.53	0
12/14/2018	DuPage	SHEETMETAL WORKER	All	BLD		48.02	50.42	1.5	1.5	2	2	10.75	16.19	0	1.03	3.5
4/5/2019	DuPage	SPRINKLER FITTER	All	BLD		48.1	50.6	1.5	1.5	2	2	13.25	15.9	0	0.55	0
8/15/2018	DuPage	STEEL ERECTOR	E	ALL		42.07		2	2	2	2	13.45	19.59	0	0.35	0
8/15/2018	DuPage	STEEL ERECTOR	W	ALL		45.06	48.66	2	2	2	2	10.52	20.76	0	0.7	
8/15/2018	DuPage	STONE MASON	All	BLD		46.19	50.81	1.5	1.5	2	2	10.65	17.92	0	0.92	0
11/16/2018	DuPage	TERRAZZO FINISHER	All	BLD		41.54	44.54	1.5	1.5	2	2	10.75	13.71	0	0.86	0
11/16/2018	DuPage	TERRAZZO MASON	All	BLD		45.38	48.88	1.5	1.5	2	2	10.75	15.17	0	0.89	0
8/15/2018	DuPage	TILE MASON	All	BLD		46.49	50.49	1.5	1.5	2	2	10.75	14.99	0	0.9	0
4/5/2019	DuPage	TRAFFIC SAFETY WRKR	All	HWY		36	37.6	1.5	1.5	2	2	8.9	9.27	0	0.25	0
4/5/2019	DuPage	TRUCK DRIVER	All	ALL	1	37.61	38.16	1.5	1.5	2	2	9.08	11.36	0	0.15	0
4/5/2019	DuPage	TRUCK DRIVER	All	ALL	2	37.76	38.16	1.5	1.5	2	2	9.08	11.36	0	0.15	0
4/5/2019	DuPage	TRUCK DRIVER	All	ALL	3	37.96	38.16	1.5	1.5	2	2	9.08	11.36	0	0.15	0
4/5/2019	DuPage	TRUCK DRIVER	All	ALL	4	38.16	38.16	1.5	1.5	2	2	9.08	11.36	0	0.15	0
10/26/2018	DuPage	TUCKPOINTER	All	BLD		46	48	1.5	1.5	2	2	8.34	16.81	0	0.93	0

APPENDIX 2
IDOT STANDARD DRAWINGS

ABV	ABOVE
A/C	ACCESS CONTROL
AC	ACRE
ADJ	ADJUST
AS	AERIAL SURVEYS
AGG	AGGREGATE
AH	AHEAD
APT	APARTMENT
ASPH	ASPHALT
AUX	AUXILIARY
AGS	AUXILIARY GAS VALVE (SERVICE)
AVE	AVENUE
AX	AXIS OF ROTATION
BK	BACK
B-B	BACK TO BACK
BKPL	BACKPLATE
B	BARN
BARR	BARRICADE
BGN	BEGIN
BM	BENCHMARK
BIND	BINDER
BIT	BITUMINOUS
BTM	BOTTOM
BLVD	BOULEVARD
BRK	BRICK
BBOX	BUFFALO BOX
BLDG	BUILDING
CIP	CAST IRON PIPE
CB	CATCH BASIN
C-C	CENTER TO CENTER
CL	CENTERLINE OR CLEARANCE
CL-E	CENTERLINE TO EDGE
CL-F	CENTERLINE TO FACE
CTS	CENTERS
CERT	CERTIFIED
CHSLD	CHISELED
CS	CITY STREET
CP	CLAY PIPE
CLSD	CLOSED
CLID	CLOSED LID
CT	COAT OR COURT
COMB	COMBINATION
C	COMMERCIAL BUILDING
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CONST	CONSTRUCT
CONTD	CONTINUED
CONT	CONTINUOUS
COR	CORNER
CORR	CORRUGATED
CMP	CORRUGATED METAL PIPE
CNTY	COUNTY
CH	COUNTY HIGHWAY
CSE	COURSE
XSECT	CROSS SECTION
m^3	CUBIC METER
mm^3	CUBIC MILLIMETER
CU YD	CUBIC YARD
CULV	CULVERT
C&G	CURB & GUTTER
D	DEGREE OF CURVE
DC	DEPRESSED CURVE
DET	DETECTOR
DIA	DIAMETER
DIST	DISTRICT
DOM	DOMESTIC
DBL	DOUBLE
DSEL	DOWNSTREAM ELEVATION
DSFL	DOWNSTREAM FLOWLINE
DR	DRAINAGE OR DRIVE
DI	DRAINAGE INLET OR DROP INLET
DRV	DRIVEWAY
DCT	DUCT
EA	EACH
EB	EASTBOUND
EOP	EDGE OF PAVEMENT
E-CL	EDGE TO CENTERLINE
E-E	EDGE TO EDGE
EL	ELEVATION
ENTR	ENTRANCE
EXC	EXCAVATION
EX	EXISTING
EXPWAY	EXPRESSWAY
E	EXTERNAL DISTANCE OF HORIZONTAL CURVE
E	OFFSET DISTANCE TO VERTICAL CURVE
F-F	FACE TO FACE
FA	FEDERAL AID
FAI	FEDERAL AID INTERSTATE
FAP	FEDERAL AID PRIMARY
FAS	FEDERAL AID SECONDARY
FAUS	FEDERAL AID URBAN SECONDARY
FP	FENCE POST
FE	FIELD ENTRANCE
FH	FIRE HYDRANT
FL	FLOW LINE
FB	FOOT BRIDGE
FDN	FOUNDATION
FR	FRAME
F&G	FRAME & GRATE
FRWAY	FREEWAY
GAL	GALLON
GALV	GALVANIZED
G	GARAGE
GM	GAS METER
GV	GAS VALVE
GRAN	GRANULAR
GR	GRATE
GRVL	GRAVEL
GND	GROUND
GUT	GUTTER
GP	GUY POLE
GW	GUY WIRE
HH	HANDHOLE
HATCH	HATCHING
HD	HEAD
HDW	HEADWALL
HDUTY	HEAVY DUTY
ha	HECTARE
HMA	HOT MIX ASPHALT
HWY	HIGHWAY
HORIZ	HORIZONTAL
HSE	HOUSE
IL	ILLINOIS
IMP	IMPROVEMENT
IN DIA	INCH DIAMETER
INL	INLET
INST	INSTALLATION
IDS	INTERSECTION DESIGN STUDY
INV	INVERT
IP	IRON PIPE
IR	IRON ROD
JT	JOINT
kg	KILOGRAM
km	KILOMETER
LS	LANDSCAPING
LN	LANE
LT	LEFT
LP	LIGHT POLE
LGT	LIGHTING
LF	LINEAL FEET OR LINEAR FEET
L	LITER OR CURVE LENGTH
LC	LONG CHORD
LNG	LONGITUDINAL
L SUM	LUMP SUM
MACH	MACHINE
MB	MAIL BOX
MH	MANHOLE
MATL	MATERIAL
MED	MEDIAN
m	METER
METH	METHOD
M	MID-ORDINATE
mm	MILLIMETER
mm DIA	MILLIMETER DIAMETER
MIX	MIXTURE
MBH	MOBILE HOME
MOD	MODIFIED
MFT	MOTOR FUEL TAX
N & BC	NAIL & BOTTLE CAP
N & C	NAIL & CAP
N & W	NAIL & WASHER
NOAA	NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION
NC	NORMAL CROWN
NB	NORTHBOUND
NE	NORTHEAST
NW	NORTHWEST
OLID	OPEN LID
PAT	PATTERN
PVD	PAVED
PVMT	PAVEMENT
PM	PAVEMENT MARKING
PED	PEDESTAL
PNT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION OF HORIZONTAL CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
POT	POINT ON TANGENT
POLYETH	POLYETHYLENE
PCC	PORTLAND CEMENT CONCRETE
PP	POWER POLE OR PRINCIPAL POINT
PRM	PRIME
PE	PRIVATE ENTRANCE
PROF	PROFILE
PGL	PROFILE GRADELINE
PROJ	PROJECT
P.C.	PROPERTY CORNER
PL	PROPERTY LINE
PR	PROPOSED
R	RADIUS
RR	RAILROAD
RRS	RAILROAD SPIKE
RPS	REFERENCE POINT STAKE
REF	REFLECTIVE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REINF	REINFORCEMENT
REM	REMOVAL
RC	REMOVE CROWN
REP	REPLACEMENT
REST	RESTAURANT
RESURF	RESURFACING
RET	RETAINING
RT	RIGHT
ROW	RIGHT-OF-WAY
RD	ROAD
RDWY	ROADWAY
RTE	ROUTE
SAN	SANITARY
SANS	SANITARY SEWER
SEC	SECTION
SEED	SEEDING
SHAP	SHAPING
S	SHED
SH	SHEET
SHLD	SHOULDER
SW	SIDEWALK OR SOUTHWEST
SIG	SIGNAL
SOD	SODDING
SM	SOLID MEDIAN
SB	SOUTHBOUND
SE	SOUTHEAST
SPL	SPECIAL
SD	SPECIAL DITCH
SQ FT	SQUARE FEET
m^2	SQUARE METER
mm^2	SQUARE MILLIMETER
SQ YD	SQUARE YARD
STB	STABILIZED
STD	STANDARD
SBI	STATE BOND ISSUE
SR	STATE ROUTE
STA	STATION
SPBGR	STEEL PLATE BEAM GUARDRAIL
SS	STORM SEWER
STY	STORY
ST	STREET
STR	STRUCTURE
e	SUPERELEVATION RATE
S.E. RUN.	SUPERELEVATION RUNOFF LENGTH
SURF	SURFACE
SMK	SURVEY MARKER
T	TANGENT DISTANCE
T.R.	TANGENT RUNOUT DISTANCE
TEL	TELEPHONE
TB	TELEPHONE BOX
TP	TELEPHONE POLE
TEMP	TEMPORARY
TBM	TEMPORARY BENCH MARK
TD	TILE DRAIN
TBE	TO BE EXTENDED
TBR	TO BE REMOVED
TBS	TO BE SAVED
TWP	TOWNSHIP
TR	TOWNSHIP ROAD
TS	TRAFFIC SIGNAL
TSCB	TRAFFIC SIGNAL CONTROL BOX
TSC	TRAFFIC SYSTEMS CENTER
TRVS	TRANSVERSE
TRVL	TRAVEL
TRN	TURN
TY	TYPE
T-A	TYPE A
TYP	TYPICAL
UNDGND	UNDERGROUND
USGS	U.S. GEOLOGICAL SURVEY
USEL	UPSTREAM ELEVATION
USFL	UPSTREAM FLOWLINE
UTIL	UTILITY
VBOX	VALVE BOX
VV	VALVE VAULT
VLT	VAULT
VEH	VEHICLE
VP	VENT PIPE
VERT	VERTICAL
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
WM	WATER METER
WV	WATER VALVE
WMAIN	WATER MAIN
WB	WESTBOUND
WILDFL	WILDFLOWERS
W	WITH
WO	WITHOUT

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DATE	REVISIONS
1-1-19	Added new symbols.
1-1-11	Updated abbreviations
	and symbols.

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

STANDARD 000001-07

ADJUSTMENT ITEMS

	EX	PR
Structure To Be Adjusted		ADJ
Structure To Be Cleaned		C
Main Structure To Be Filled		FM
Structure To Be Filled		F
Structure To Be Filled Special		FSP
Structure To Be Removed		R
Structure To Be Reconstructed		REC
Structure To Be Reconstructed Special		RSP
Frame and Grate To Be Adjusted		A
Frame and Lid To Be Adjusted		A
Domestic Service Box To Be Adjusted		A
Valve Vault To Be Adjusted		A
Special Adjustment		SP
Item To Be Abandoned		AB
Item To Be Moved		M
Item To Be Relocated		REL
Pavement Removal and Replacement		

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ALIGNMENT ITEMS

	EX	PR
Baseline		
Centerline		
Centerline Break Circle		
Baseline Symbol		
Centerline Symbol		
PI Indicator		
Point Indicator		
Horizontal Curve Data (Half Size)	CURVE P.I. STA= Δ= D= R= T= L= E= e= T.R.= S.E. RUN= P.C. STA= P.T. STA=	CURVE P.I. STA= Δ= D= R= T= L= E= e= T.R.= S.E. RUN= P.C. STA= P.T. STA=

BOUNDARIES ITEMS

	EX	PR
Dashed Property Line		
Solid Property/Lot Line		
Section/Grant Line		
Quarter Section Line		
Quarter/Quarter Section Line		
County/Township Line		
State Line		
Iron Pipe Found		
Iron Pipe Set		
Survey Marker		
Property Line Symbol		
Same Ownership Symbol (Half Size)		
Northwest Quarter Corner (Half Size)		
Section Corner (Half Size)		
Southeast Quarter Corner (Half Size)		

DRAINAGE ITEMS

	EX	PR
Channel or Stream Line		
Culvert Line		
Grading & Shaping Ditches		
Drainage Boundary Line		
Paved Ditch		
Aggregate Ditch		
Pipe Underdrain		
Storm Sewer		
Flowline		
Ditch Check		
Headwall		
Inlet		
Manhole		
Summit		
Roadway Ditch Flow		
Swale		
Catch Basin		
Culvert End Section		
Water Surface Indicator		
Riprap		

HYDRAULICS ITEMS

	EX	PR
Overflow		
Sheet Flow		
Hydrant Outlet		

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 2 of 9)

STANDARD 000001-07

EROSION & SEDIMENT CONTROL ITEMS

	EX	PR
Cleaning & Grading Limits		
Dike		
Erosion Control Fence		
Perimeter Erosion Barrier		
Temporary Fence		
Ditch Check Temporary		
Ditch Check Permanent		
Inlet & Pipe Protection		
Sediment Basin		
Erosion Control Blanket		
Fabric Formed Concrete Revetment Mat		
Turf Reinforcement Mat		
Mulch Temporary		
Mulch Method 1		
Mulch Method 2 Stabilized		
Mulch Method 3 Hydraulic		

CONTOUR ITEMS

	EX	PR
Approx. Index Line		
Approx. Intermediate Line		
Index Contour		
Intermediate Contour		

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NON-HIGHWAY IMPROVEMENT ITEMS

	EX	PR
Noise Attn./Levee		
Field Line		
Fence		
Base of Levee		
Mailbox		
Multiple Mailboxes		
Pay Telephone		
Advertising Sign		
ITS* Camera		
Wind Turbine		
Cellular Tower		

*Intelligent Transportation Systems

LANDSCAPING ITEMS

	EX	PR
Contour Mounding Line		
Fence		
Fence Post		
Shrubs		
Mowline		
Perennial Plants		
Seeding Class 2		
Seeding Class 2A		
Seeding Class 4		
Seeding Class 4 & 5 Combined		

EXISTING LANDSCAPING ITEMS (contd.)

	EX	PR
Seeding Class 5		
Seeding Class 7		
Seedlings Type 1		
Seedlings Type 2		
Sodding		
Mowstake w/Sign		
Tree Trunk Protection		
Evergreen Tree	E	
Shade Tree	E	

LIGHTING

	EX	PR
Duct		
Conduit		
Electrical Aerial Cable	A	A
Electrical Buried Cable	L	L
Controller		
Underpass Luminaire		
Power Pole		

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 3 of 9)

STANDARD 000001-07

LIGHTING (contd.)

	EX	PR
Pull Point	Ⓟ	Ⓟ
Handhole	▧	◪
Heavy Duty Handhole	[H]	[H]
Junction Box	ⓙ	ⓙ
Light Unit Comb.		
Electrical Ground		
Traffic Flow Arrow		
High Mast Pole (Half Size)		
Light Unit-1		

PAVEMENT (MISC.)

	EX	PR
Keyed Long. Joint		
Keyed Long. Joint w/Tie Bars		
Sawed Long. Joint w/Tie Bars		
Bituminous Shoulder		
Bituminous Taper		
Stabilized Driveway		
Widening		

PAVEMENT MARKINGS

	EX	PR
Handicap Symbol		
RR Crossing		
Raised Marker Amber 1 Way		
Raised Marker Amber 2 Way		
Raised Marker Crystal 1 Way		
Two Way Turn Left		
Shoulder Diag. Pattern		
Skip-Dash White		
Skip-Dash Yellow		
Stop Line		
Solid Line		
Double Centerline		
Dotted Lines		

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STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

STANDARD 000001-07

PAVEMENT MARKINGS (contd.)

	EX	PR
CL 2Ln 2Way RRPM 12.2 m (40') o.c.		
CL 2Ln 2Way RRPM 80' (24.4 m) o.c.		
CL Multilane Div. RRPM 40' (12.2 m) o.c.		
CL Multilane Div. RRPM 80' (24.4 m) o.c.		
CL Multilane Div. Dbl. RRPM 80' (24.4 m) o.c.		
CL Multilane Undiv.		
Two Way Turn Left Line		
Urban Combination Left		
Urban Combination Right		
Urban Left Turn Arrow		
Urban Right Turn Arrow		
Urban Left Turn Only		ONLY
Urban Right Turn Only		ONLY
Urban Thru Only		ONLY

RAILROAD ITEMS

	EX	PR
Abandoned Railroad		
Railroad		
Railroad Point		
Control Box		
Crossing Gate		
Flashing Signal		
Railroad Cant. Mast Arm		
Crossbuck		

REMOVAL ITEMS

	EX	PR
Removal Tlc		
Bituminous Removal		
Hatch Pattern		
Tree Removal Single		

RIGHT OF WAY ITEMS

	EX	PR
Future ROW Corner Monument		
ROW Marker		
ROW Llne		
Easement		
Temporary Easement		

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STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 5 of 9)

STANDARD 000001-07

PAVEMENT MARKINGS (contd.)

	EX	PR
Urban U-Turn		
Urban Combined U-Turn		
Rural Combination Left		
Rural Combination Right		
Rural Left Turn Arrow		
Rural Right Turn Arrow		
Rural Left Turn Only		 
Rural Right Turn Only		 
Rural Thru Only		 
Bike Lane Symbol		
Bike Lane Text		
Bike Path Shared		
Bike Shared Roadway		

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STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 6 of 9)

STANDARD 000001-07

RIGHT OF WAY ITEMS (contd.)

	EX	PR
Access Control Line		AC
Access Control Line & ROW	AC	AC
Access Control Line & ROW with Fence	AC	AC
Excess ROW Line		XS

ROADWAY PLAN ITEMS

	EX	PR
Cable Barrier		
Concrete Barrier		
Edge of Pavement		
Bit Shoulders, Medians and C&G Line		
Aggregate Shoulder		
Sidewalks, Driveways		
Guardrail		
Guardrail Post		
Traffic Sign		
Corrugated Median		
Impact Attenuator		
North Arrow with District Office (Half Size)	N	
Match Line		STA. 45+00
Slope Limit Line		
Typical Cross-Section Line		

ROADWAY PROFILES

	EX	PR
P.I. Indicator		
Point Indicator		
Earthworks Balance Point		
Begin Point		
Vert. Curve Data	VPI = ELEV= L = E =	VPI = ELEV= L = E =
Ditch Profile Left Side		
Ditch Profile Right Side		
Roadway Profile Line		
Storm Sewer Profile Left Side		
Storm Sewer Profile Right Side		

SIGNING ITEMS

	EX	PR
Cone, Drum or Barricade		
Barricade Type II		
Barricade Type III		
Barricade With Edge Line		
Flashing Light Sign		
Panels I		
Panels II		
Direction of Traffic		
Sign Flag (Half Size)		

SIGNING ITEMS (contd.)

	EX	PR
Reverse Left W1-4L (Half Size)		
Reverse Right W1-4R (Half Size)		
Two Way Traffic Sign W6-3 (Half Size)		
Detour Ahead W20-2(O) (Half Size)		DETOUR AHEAD
Left Lane Closed Ahead W20-5L(O) (Half Size)		LEFT LANE CLOSED AHEAD
Right Lane Closed Ahead W20-5R(O) (Half Size)		RIGHT LANE CLOSED AHEAD
Road Closed Ahead W20-3(O) (Half Size)		ROAD CLOSED AHEAD
Road Construction Ahead W20-1-(O) (Half Size)		ROAD CONSTRUCTION AHEAD
Single Lane Ahead (Half Size)		SINGLE LANE AHEAD
Transition Left W4-2L (Half Size)		
Transition Right W4-2R (Half Size)		

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STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 7 of 9)

STANDARD 000001-07

SIGNING ITEMS (contd.)

	EX	PR
One Way Arrow Lrg. W1-6-(O) (Half Size)		
Two Way Arrow Large W1-7-(O) (Half Size)		
Detour M4-10L-(O) (Half Size)		
Detour M4-10R-(O) (Half SIze)		
One Way Left R6-1L (Half Size)		
One Way RIght R6-1R (Half Size)		
Left Turn Lane R3-I100L (Half Size)		
Keep Left R4-7AL (Half Size)		
Keep Left R4-7BL (Half Size)		
Keep RIght R4-7AR (Half Size)		
Keep RIght R4-7BR (Half Size)		
Stop Here On Red R10-6-AL (Half Size)		
Stop Here On Red R10-6-AR (Half Size)		
No Left Turn R3-2 (Half Size)		
No Right Turn R3-1 (Half Size)		
Road Closed R11-2 (Half Size)		
Road Closed Thru Traffic R11-2 (Half Size)		

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STRUCTURES ITEMS

	EX	PR
Box Culvert Barrel		
Box Culvert Headwall		
Bridge Pier		
Bridge		
Retaining Wall		
Temporary Sheet Piling		

TRAFFIC SHEET ITEMS

	EX	PR
Cable Number		
Left Turn Green		
Left Turn Yellow		
Signal Backplate		
Signal Section 8" (200 mm)		
Signal Section 12" (300 mm)		
Walk/Don't Walk Letters		
Walk/Don't Walk Symbols		

TRAFFIC SIGNAL ITEMS

	EX	PR
Galv. Steel Conduit		
Underground Cable		
Detector Loop Line		
Detector Loop Large		
Detector Loop Small		
Detector Loop Quadrapole		

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

(Sheet 8 of 9)

STANDARD 000001-07

TRAFFIC SIGNAL ITEMS (contd.)

	EX	PR
Detector Raceway		
Aluminum Mast Arm		
Steel Mast Arm		
Veh. Detector Magnetic		
Conduit Splice		
Controller		
Gulfbox Junction		
Wood Pole		
Temp. Signal Head		
Handhole		
Double Handhole		
Heavy Duty Handhole		
Junction Box		
Ped. Pushbutton Detector		
Ped. Signal Head		
Power Pole Service		
Priority Veh. Detector		
Signal Head		
Signal Head w/Backplate		
Signal Post		
Closed Circuit TV		
Video Detector System		

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UNDERGROUND UTILITY ITEMS

	EX	PR	ABANDONED
Cable TV			
Electric Cable			
Fiber Optic			
Gas Pipe			
Oil Pipe			
Sanitary Sewer			
Telephone Cable			
Water Pipe			

UTILITIES ITEMS

	EX	PR
Controller		
Double Handhole		
Fire Hydrant		
GuyWire or Deadman Anchor		
Handhole		
Heavy Duty Handhole		
Junction Box		
Light Pole		
Manhole		
Monitoring Well (Gasoline)		
Pipeline Warning Sign		
Power Pole		
Power Pole with Light		
Sanitary Sewer Cleanout		
Splice Box Above Ground		
Telephone Splice Box Above Ground		
Telephone Pole		

UTILITY ITEMS (contd.)

	EX	PR
Traffic Signal		
Traffic Signal Control Box		
Water Meter		
Water Meter Valve Box		
Profile Line		
Aerial Power Line		

VEGETATION ITEMS

	EX	PR
Deciduous Tree		
Bush or Shrub		
Evergreen Tree		
Stump		
Orchard/Nursery Line		
Vegetation Line		
Woods & Bush Line		

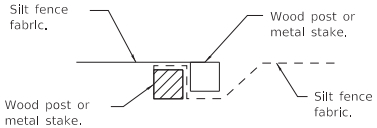
WATER FEATURE ITEMS

	EX	PR
Stream or Drainage Ditch		
Waters Edge		
Water Surface Indicator		
Water Point		
Disappearing Ditch		
Marsh		
Marsh/Swamp Boundary		

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

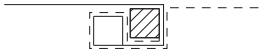
(Sheet 9 of 9)

STANDARD 000001-07



Place end-post (stake) of first silt fence adjacent to end-post (stake) of second silt fence with fabric positioned as swown.

STEP 1

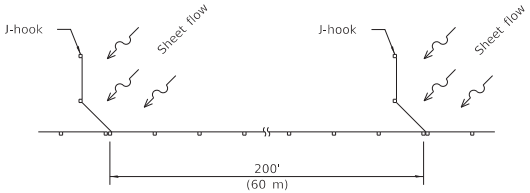


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

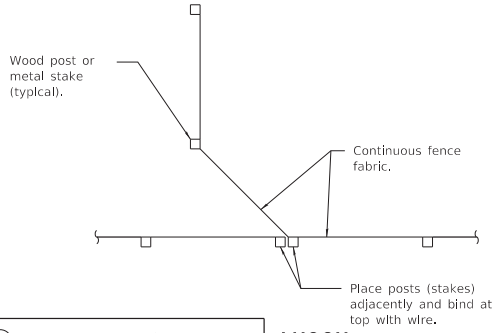
STEP 2

ATTACHING TWO SILT FILTER FENCES

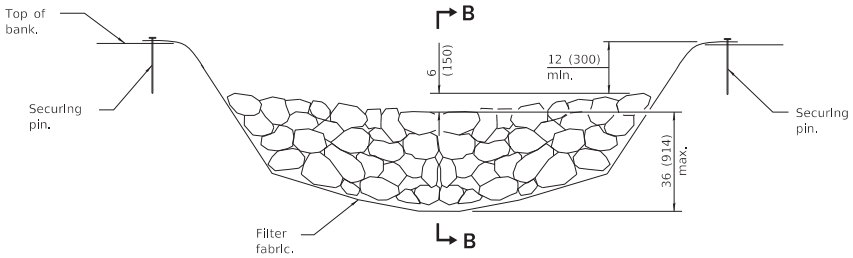
(Not applicable for J-hooks)



SILT FILTER J-HOOK PLACEMENT

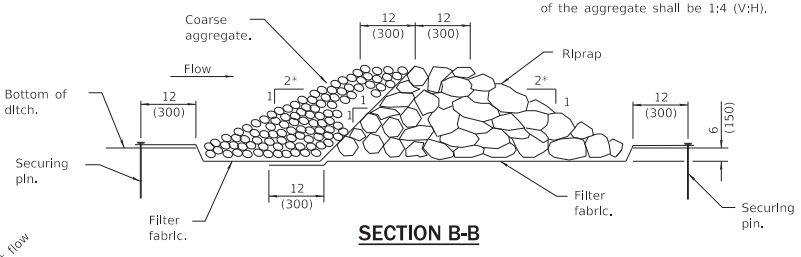


J-HOOK



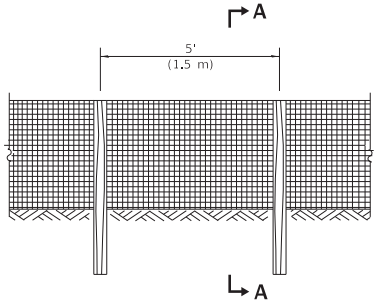
ELEVATION

* When the ditch check is within the clear zone and the road is open to traffic, the traffic approach slope of the aggregate shall be 1:4 (V:H).



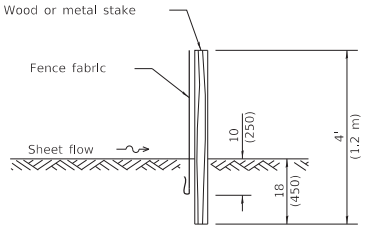
SECTION B-B

AGGREGATE DITCH CHECK

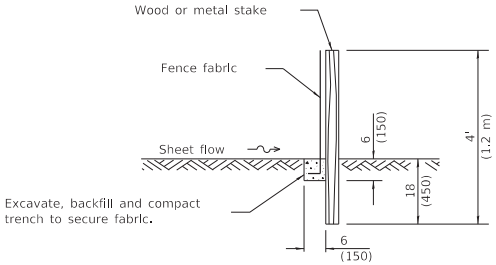


ELEVATION

SILT FILTER FENCE AS A PERIMETER EROSION BARRIER



SLICE METHOD



TRENCH METHOD

SECTION A-A

GENERAL NOTES

The installation details and dimensions shown for perimeter erosion barriers shall also apply for inlet and pipe protection.

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

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Michael Briand
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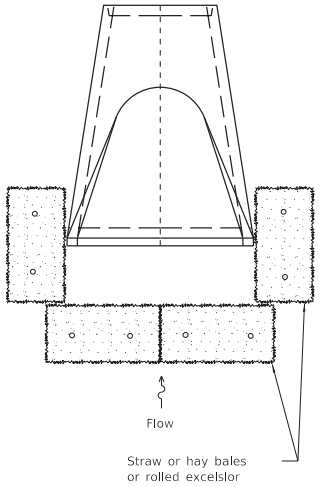
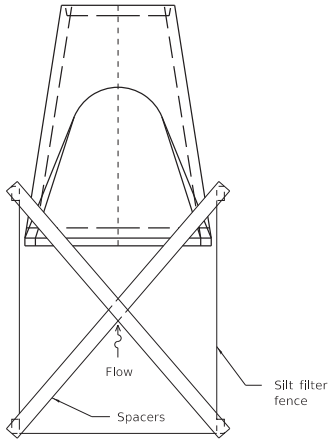
DATE	REVISIONS
1-1-13	Corrected notation for
	flowline ($\mathbb{E}$) on SEDIMENT
	BASIN ELEVATION.
1-1-12	Omitted hay/straw perimeter
	barrier. Added SLICE METHOD
	to SECTION A-A.

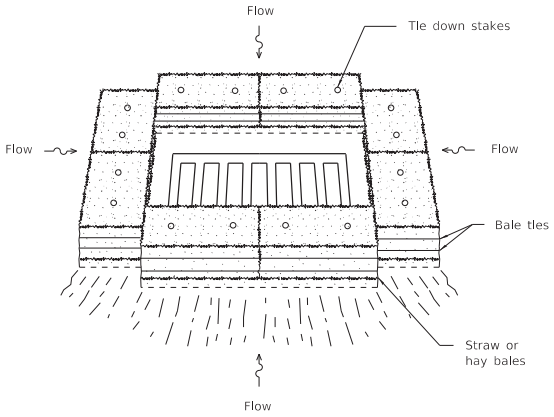
TEMPORARY EROSION CONTROL SYSTEMS

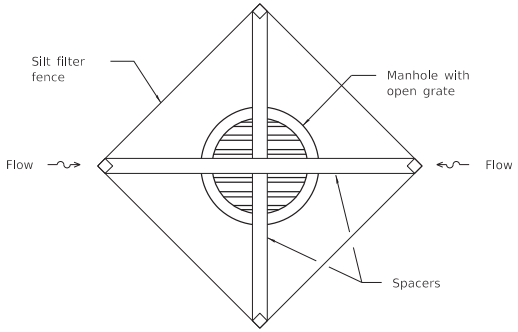
(Sheet 1 of 2)

STANDARD 280001-07

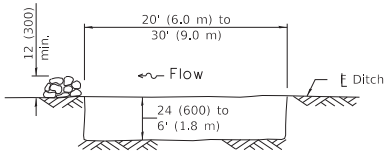






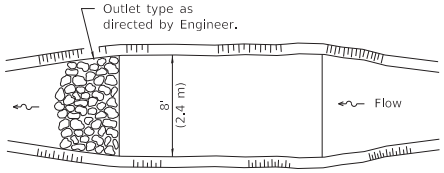


INLET AND PIPE PROTECTION



The performance of the basin will improve if put into a series.

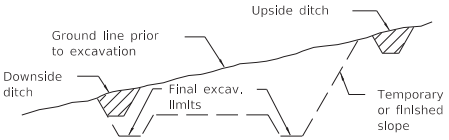
ELEVATION



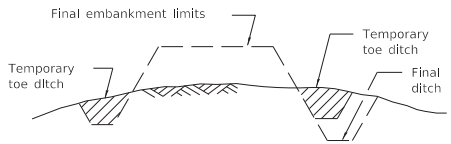
The long dimension should be parallel with the direction of the flow. Accumulated silt shall be removed anytime the basins become 75% filled.

PLAN

SEDIMENT BASIN



TYPICAL CUT CROSS-SECTION



TYPICAL FILL CROSS-SECTION

TEMPORARY DITCHES FOR CUT & FILL SECTIONS

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Michael Brand
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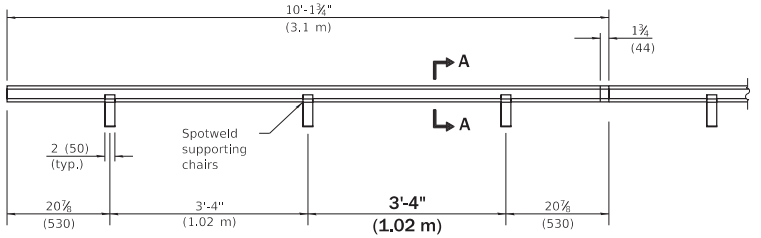
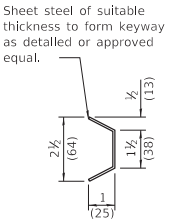
TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

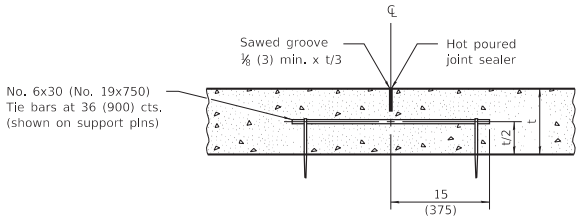
STANDARD 280001-07



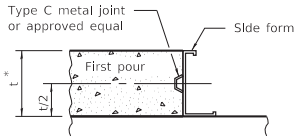
TYPE C METAL JOINT



SECTION A-A

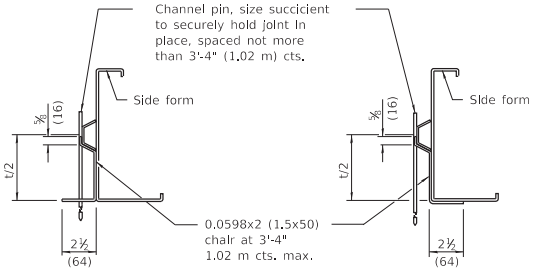


LONGITUDINAL SAWED JOINT



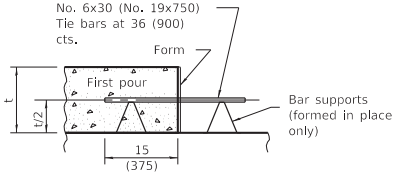
LONGITUDINAL KEYED JOINT

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



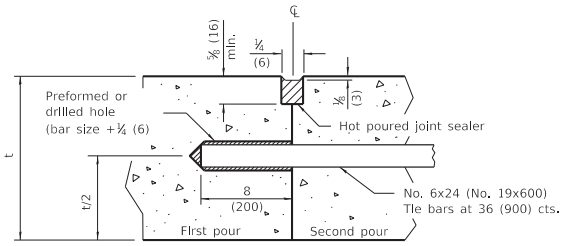
SUPPORTING CHAIR ALTERNATE

SUPPORTING CHAIR ALTERNATE



LONGITUDINAL CONSTRUCTION JOINT

(TIE BAR FORMED IN PLACE OR MECHANICALLY INSERTED)



LONGITUDINAL CONSTRUCTION JOINT

(TIE BAR GROUTED IN PLACE)

GENERAL NOTES

All slope ratlos are expressed as unlts 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
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Maureen M. Beck
ENGINEER OF DESIGN AND ENVIRONMENT

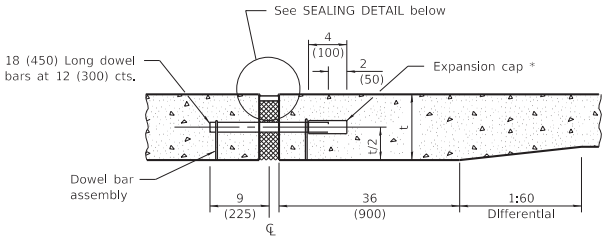
ISSUED 1-1-07

DATE	REVISIONS
1-1-18	Changed tie bar spacing
	to 36 (900) cts. Revised
	DOWEL BAR TABEL.
1-1-08	Switched unlts to
	English (metric).

PAVEMENT JOINTS

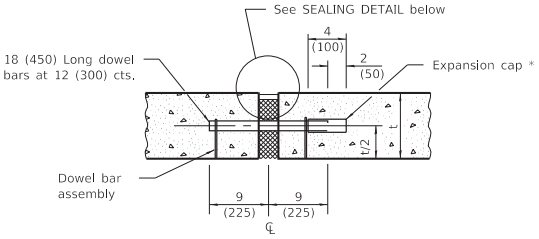
(Sheet 1 of 2)

STANDARD 420001-09

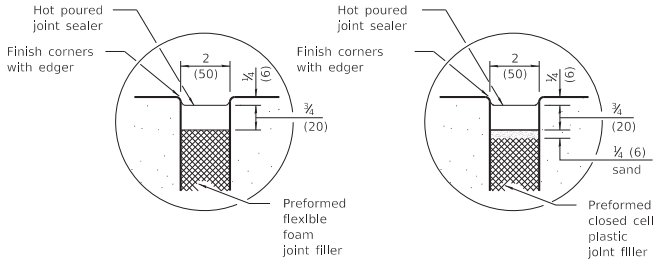


TRANSVERSE EXPANSION JOINT
(FOR PAVEMENTS WITH UNEQUAL THICKNESS)

* 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.

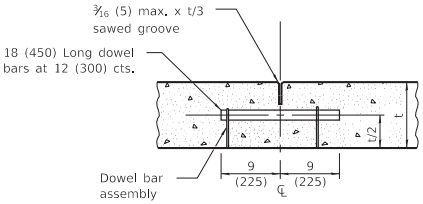


TRANSVERSE EXPANSION JOINT
(FOR PAVEMENTS WITH EQUAL THICKNESS)

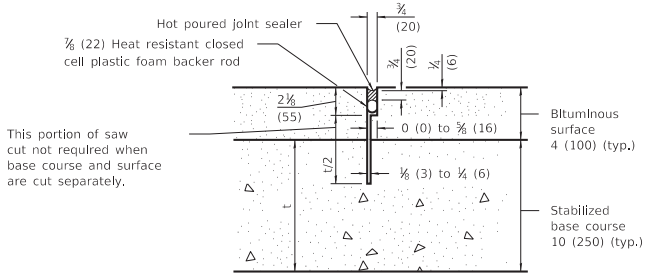


SEALING DETAIL

DOWEL BAR TABLE	
PAVEMENT THICKNESS	DOWEL BAR DIAMETER
10 (250) or greater	1½ (38)
8 (200) thru 9.99 (249)	1¼ (32)
Less than 8 (200)	1 (25)



TRANSVERSE CONTRACTION JOINT



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

Illinois Department of Transportation

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

APPROVED January 1, 2018
Maureen M. Bress
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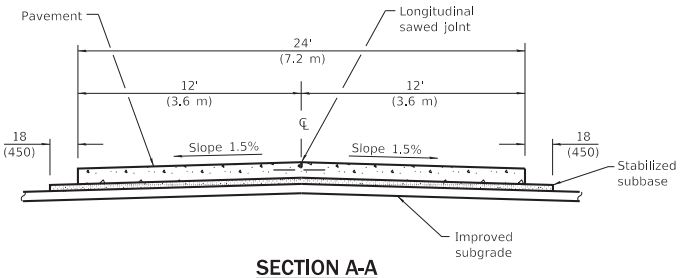
ISSUED 1-1-07

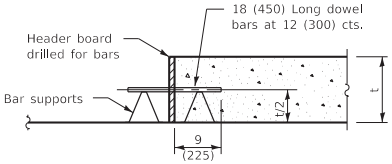
PAVEMENT JOINTS
(Sheet 2 of 2)

STANDARD 420001-09

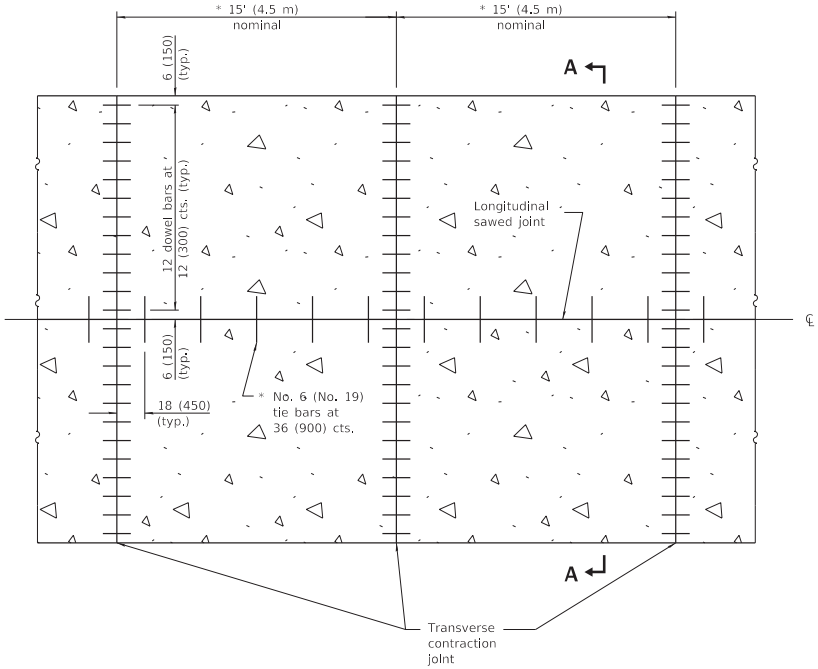


SECTION A-A

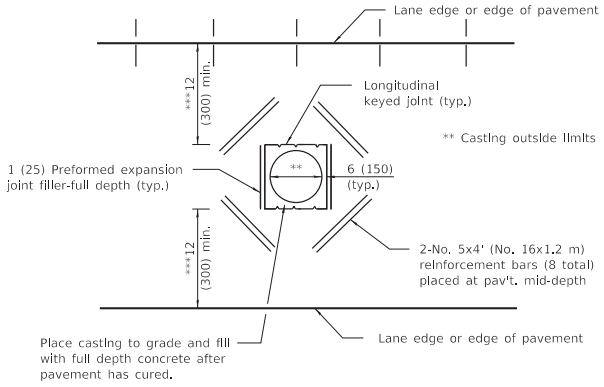
(TYPICAL 2-LANE WITH SHOULDERS)



TRANSVERSE CONSTRUCTION JOINT



PAVEMENT PLAN



*** 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

* 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.

GENERAL NOTES

See Standard 420001 for details of joints not shown.

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

Illinois Department of Transportation

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

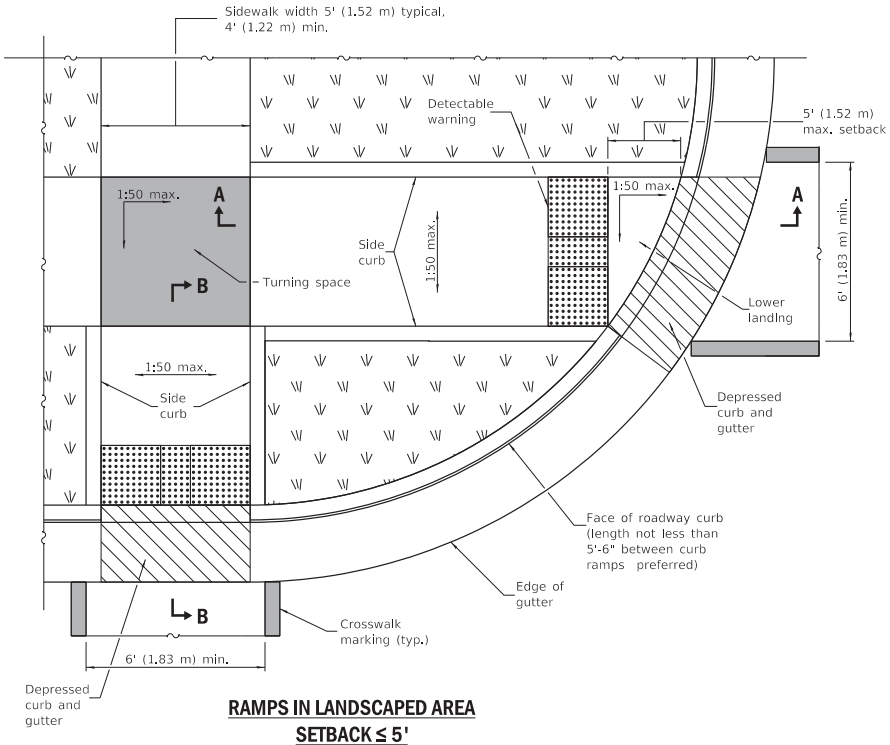
APPROVED January 1, 2018
Maureen M. Beck
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

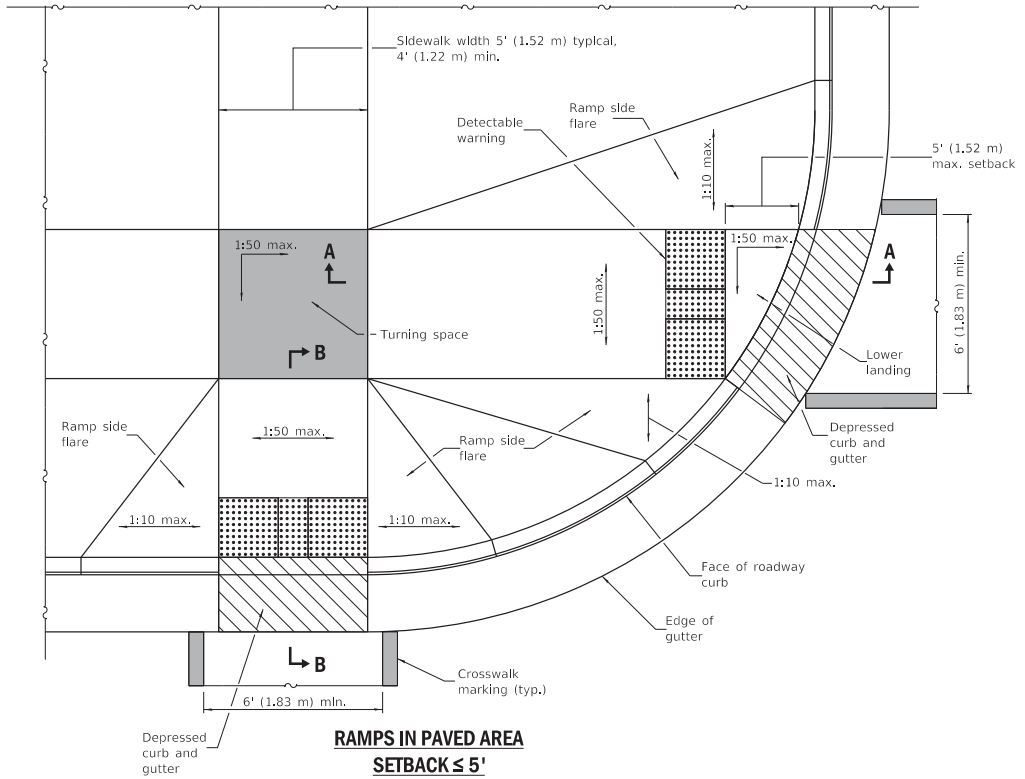
DATE	REVISIONS
1-1-18	Changed spacing of tie
	bars to 36 (900).
1-1-15	Added dimension of tie
	bars from transverse
	contraction joints

24' (7.2 m) JOINTED PCC PAVEMENT

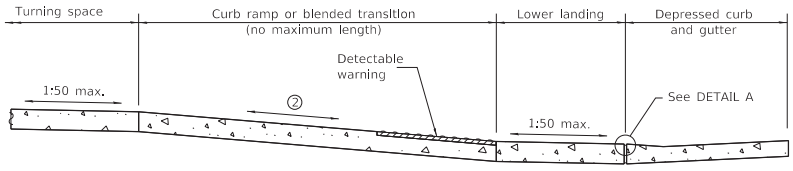
STANDARD 420101-06



RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'

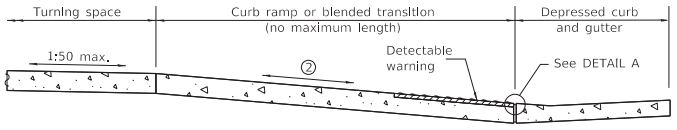


RAMPS IN PAVED AREA
SETBACK ≤ 5'



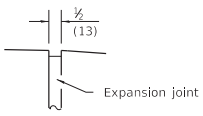
SECTION A-A

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.

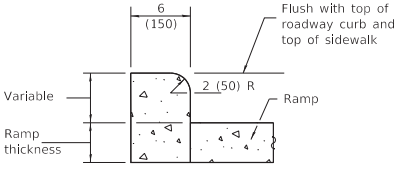


SECTION B-B

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.

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

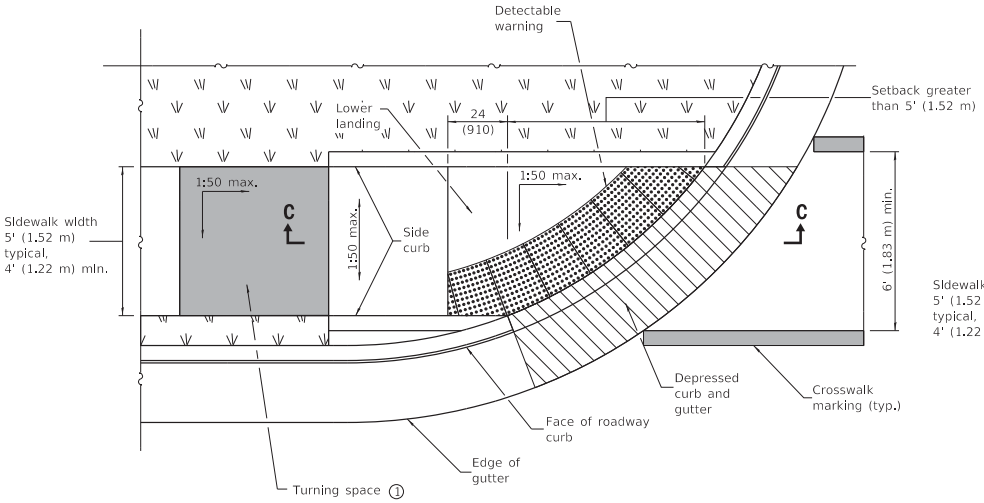
ISSUED 1-1-07

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.

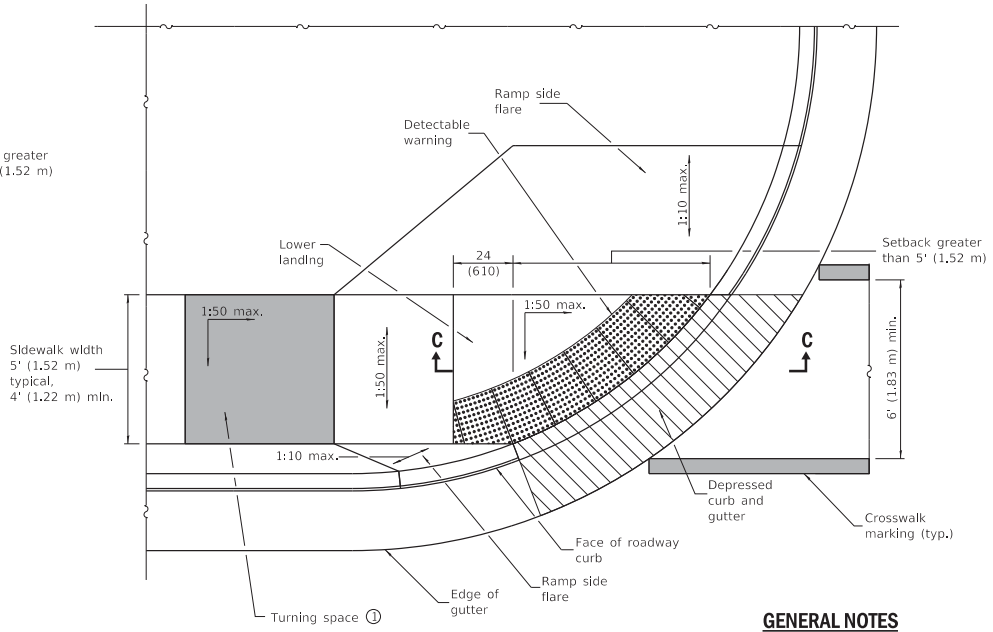
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

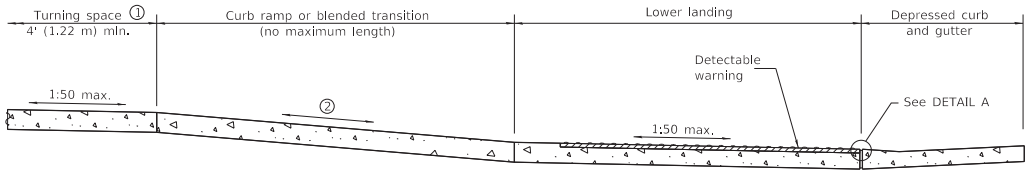
STANDARD 424001-11



RAMP IN LANDSCAPED AREA
SETBACK > 5'



RAMP IN PAVED AREA
SETBACK > 5'



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.

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.

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

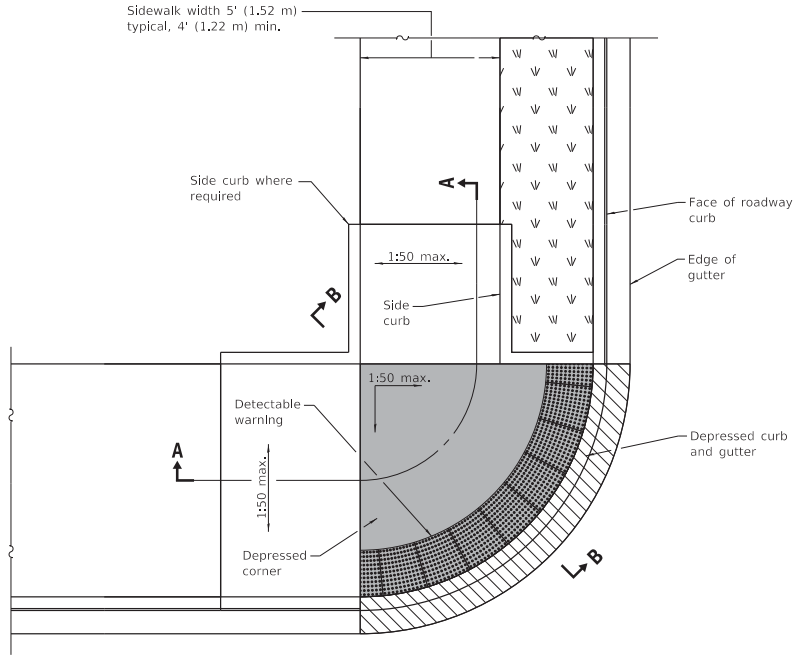
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

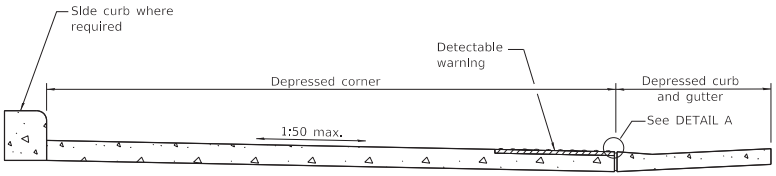
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

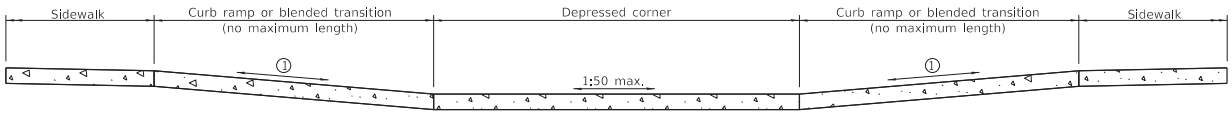
STANDARD 424001-11



DEPRESSED CORNER

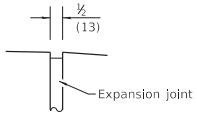


SECTION B-B

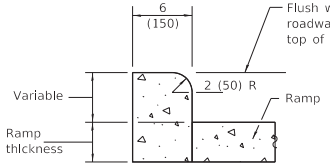


SECTION A-A

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

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.

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

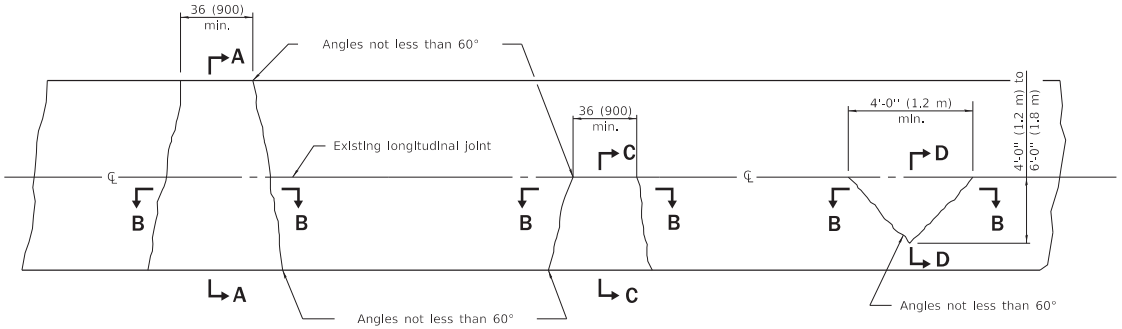
ISSUED 1-1-12

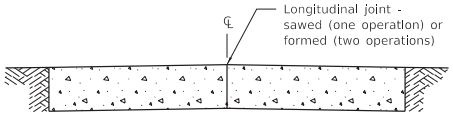
DATE	REVISIONS
1-1-19	Removed upper landings, added
	blended transition and detectable
	warning tolerances.
1-1-18	Omitted diagonal slope at
	turning spaces and upper
	landings.

DEPRESSED CORNER FOR SIDEWALKS

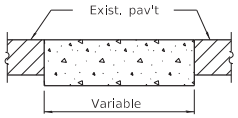
STANDARD 424021-05

CLASS C

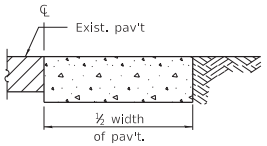




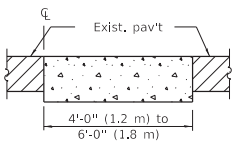
SECTION A-A



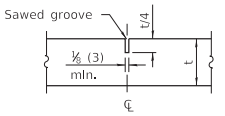
SECTION B-B



SECTION C-C



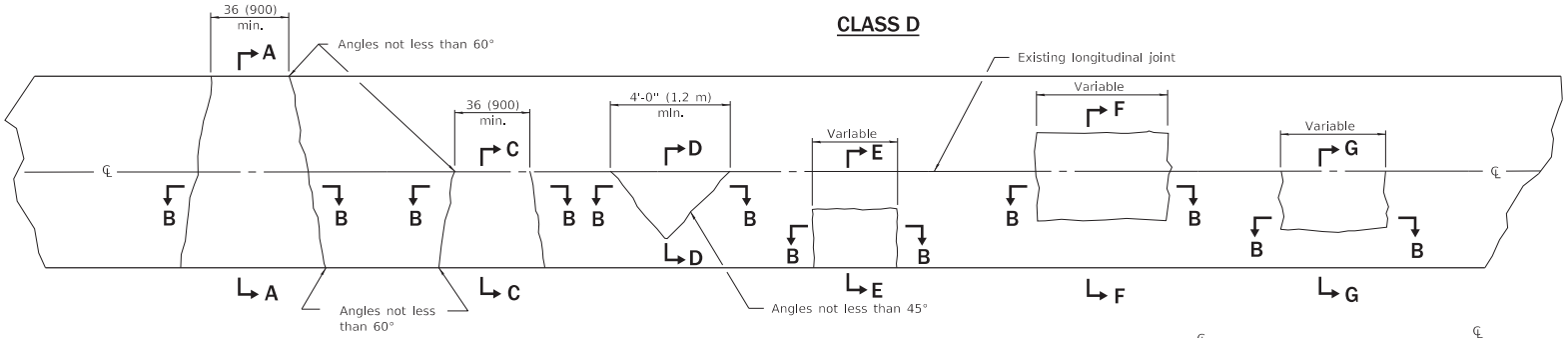
SECTION D-D

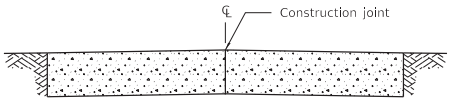


DETAIL OF SAWED CONTRACTION JOINT

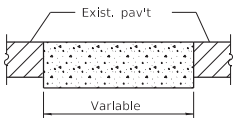
Note:
Longitudinal joints shall be as detailed on Standard 420001, except tie bars are not required for patches 20'-0" (6.0 m) or less in length.

CLASS D

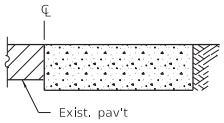




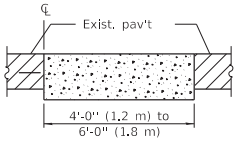
SECTION A-A
(Built in two operations)



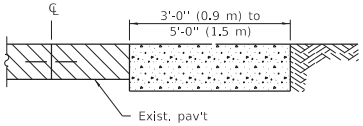
SECTION B-B



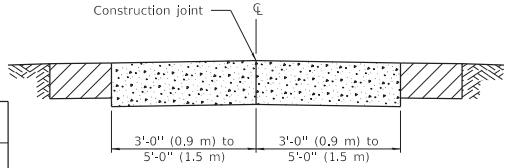
SECTION C-C



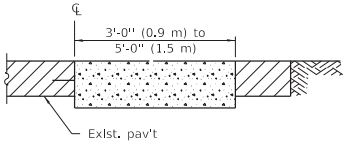
SECTION D-D



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.

Illinois Department of Transportation

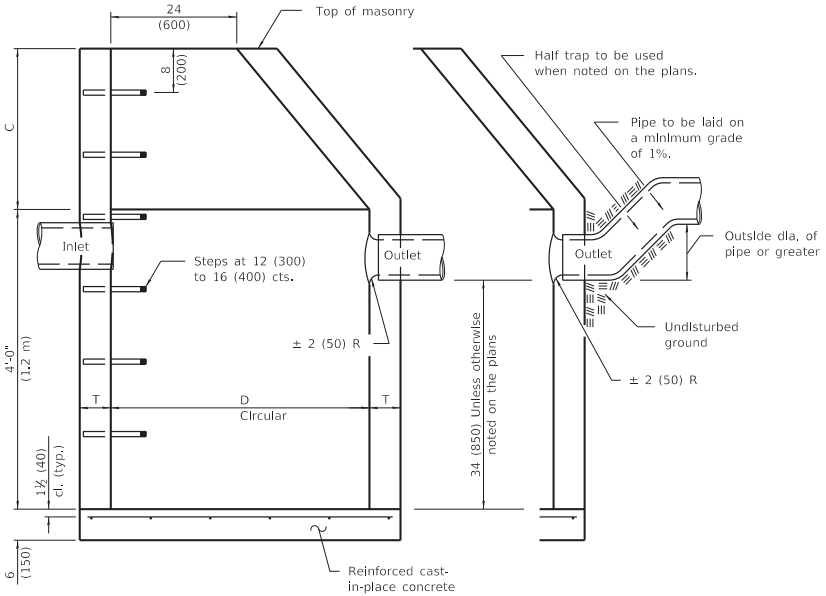
PASSED January 1, 2008
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

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

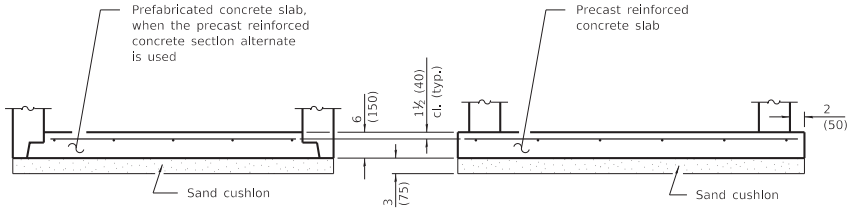
CLASS C and D PATCHES

STANDARD 442201-03



ELEVATION
(Standard Outlet)

ELEVATION
(Half Trap)



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	5 (125) 5 (125)
Brick Masonry	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	8 (200) 8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	4 (100) 5 (125)
Cast-in-place Concrete	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	6 (150) 6 (150)

* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.20 sq. in./ft (420 sq. mm/m) in both directions with a maximum spacing of 12 (300).

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.

See Standard 602601 for optional precast reinforced concrete flat slab top.

See Standard 602701 for details of steps.

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

Illinois Department of Transportation

PASSED January 1, 2011
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

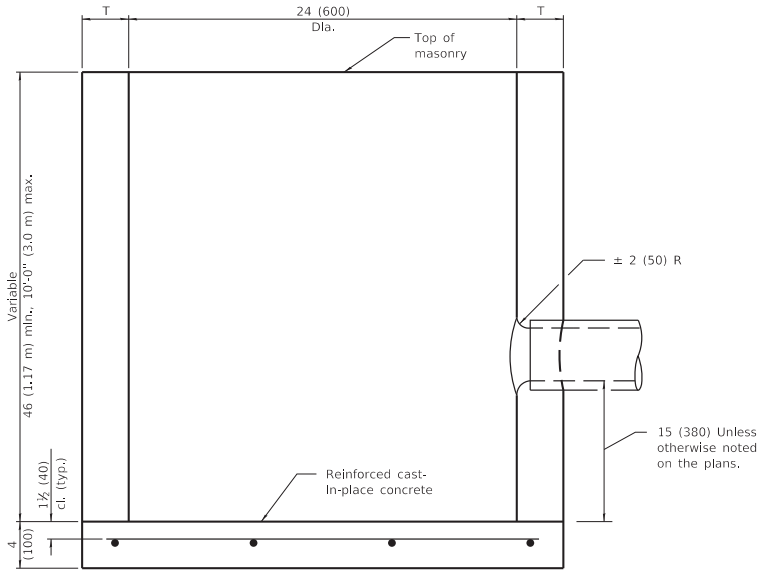
APPROVED January 1, 2011
Scott Essex
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Added 'Outside' to half trap
	note. Detail rein. in slabs.
	Revised general notes.
1-1-09	Switched units to
	English (metric).

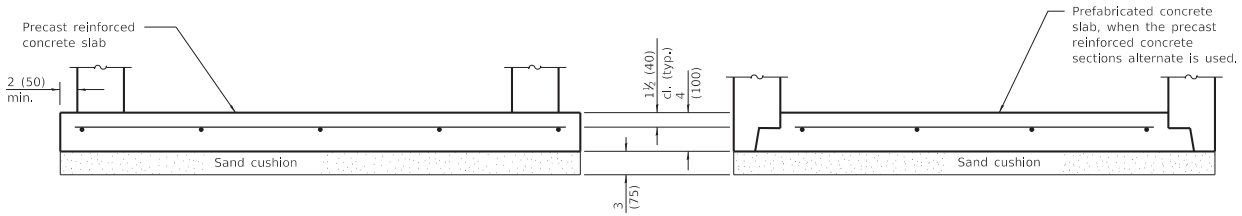
CATCH BASIN TYPE A

STANDARD 602001-02



ELEVATION

ALTERNATE MATERIALS FOR WALLS	T (mln)
Precast Reinforced Concrete Section	3 (75)
Concrete Masonry Unit	5 (125)
Cast-in-Place Concrete	6 (150)
Brick Masonry	8 (200)



ALTERNATE BOTTOM SLAB

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.27 sq. in./ft. (570 sq. mm/m) in both directions with a maximum spacing of 9 (230).

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.

Illinois Department of Transportation

PASSED January 1, 2011
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

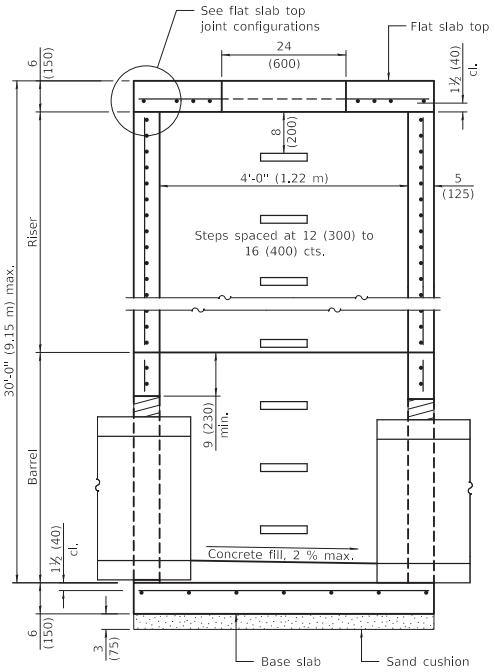
APPROVED January 1, 2011
Scott Bush
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Added general notes.
1-1-09	Switched units to
	English (metric).

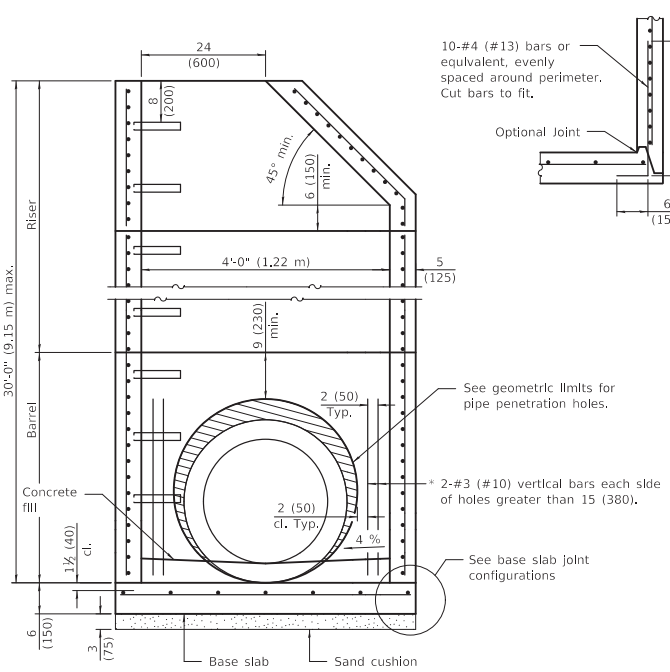
CATCH BASIN TYPE C

STANDARD 602011-02



SECTION PARALLEL TO PIPE

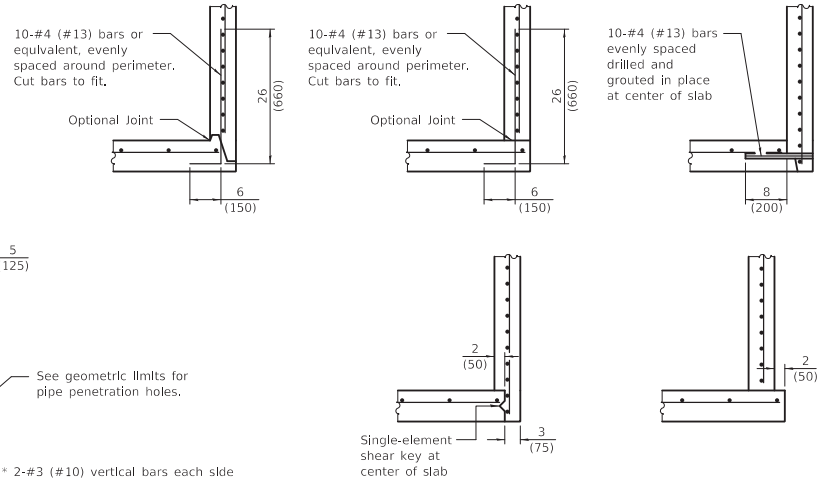
(Without conical top riser)



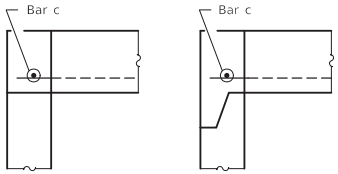
SECTION PERPENDICULAR TO PIPE

(With conical top riser)

* As an alternate, the barrel wall reinforcement may be reduced to riser wall reinforcement with #3 (#10) bars placed around the pipe penetration holes as shown. This option may be utilized when the pipe penetration holes are formed as opposed to cored.



BASE SLAB JOINT CONFIGURATIONS

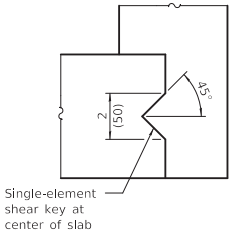


FLAT SLAB TOP JOINT CONFIGURATIONS

(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

1. A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 24 (600).
2. A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).
3. A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.
4. Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.
5. The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).
6. Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY

(Reinforcement not shown for clarity)

GENERAL NOTES

The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.

Lifting holes shall be located in the sections as per the manufacturer's recommendations, except as noted.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

PASSED March 1, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED March 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

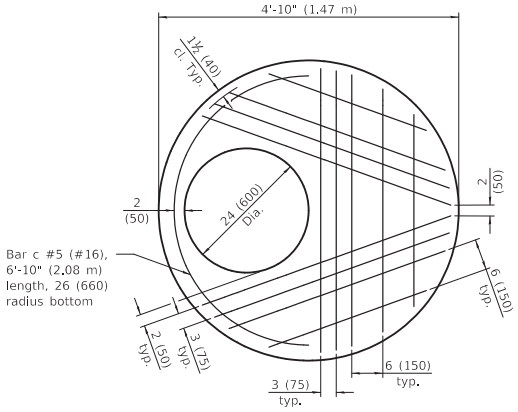
ISSUED 1-1-97

DATE	REVISIONS
3-1-19	Moved wall reinforcement from
	inside face to middle.
1-1-19	Expanded / refined reinforcement
	options. Increased manhole depths.

PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER

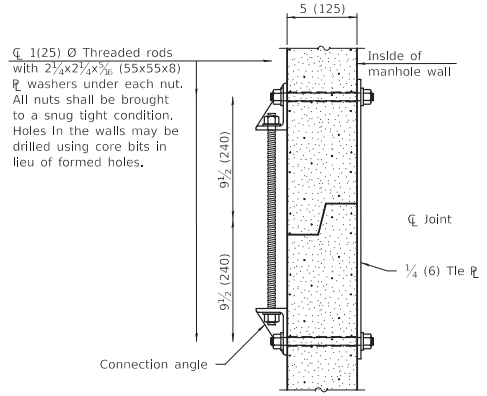
(Sheet 1 of 2)

STANDARD 602401-06

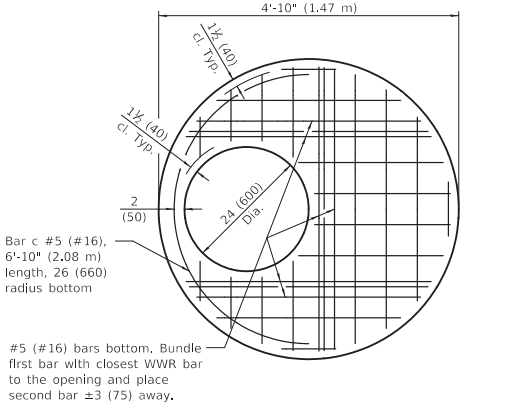


PLAN - FLAT SLAB TOP

(Showing layout of reinforcement bars and c bars)

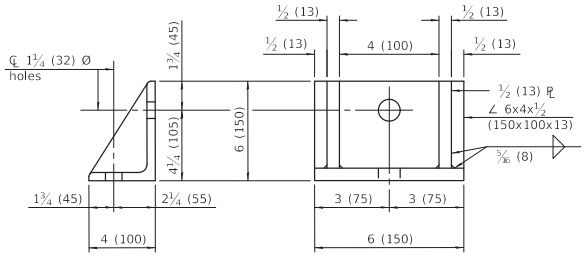


JOINT SPLICE

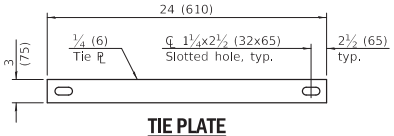


PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	** 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
Barrel	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.16 sq. in./ft. (339 sq. mm/m)	4 (100)

BASE SLAB REINFORCEMENT

Location	Total Height	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)

Illinois Department of Transportation

PASSED March 1, 2019
ENGINEER OF POLICY AND PROCEDURES

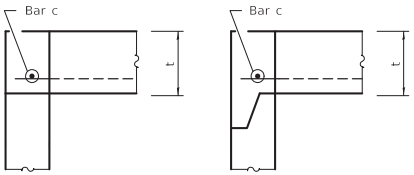
APPROVED March 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

PRECAST MANHOLE TYPE A
4' (1.22 m) DIAMETER

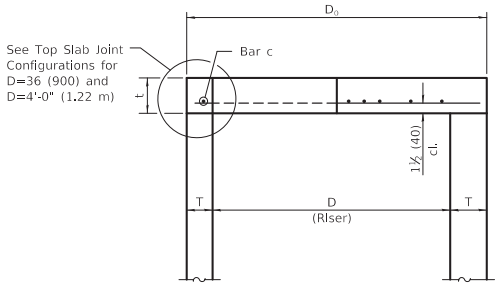
(Sheet 2 of 2)

STANDARD 602401-06

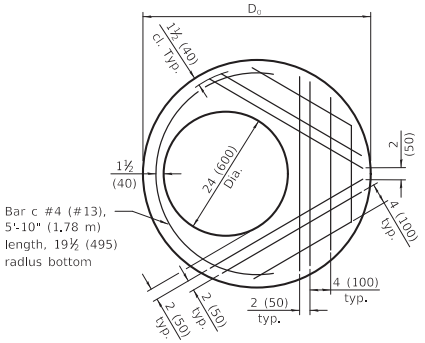


FLAT SLAB TOP JOINT CONFIGURATIONS FOR D = 36 (900) AND D = 4'-0" (1.22 m)

(Shown at access hole)

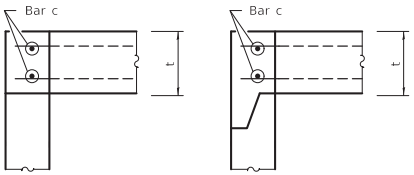


SECTION THRU FLAT SLAB TOP FOR D = 36 (900) AND D = 4'-0" (1.22 m)



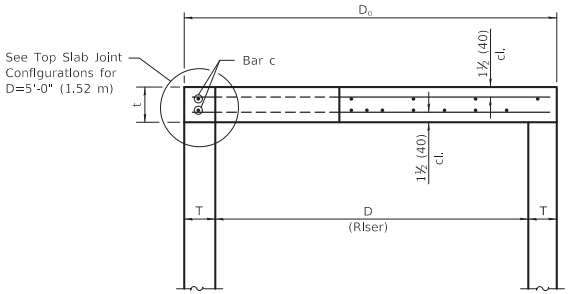
PLAN - FLAT SLAB TOP FOR D = 36 (900)

(Showing layout of reinforcement bars and c bars)

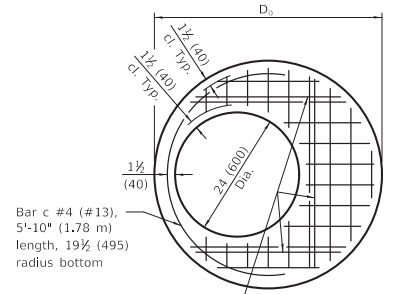


FLAT SLAB TOP JOINT CONFIGURATIONS D = 5'-0" (1.52 m)

(Shown at access hole)



SECTION THRU FLAT SLAB TOP FOR D = 5'-0" (1.52 m)



PLAN - FLAT SLAB TOP FOR D = 36 (900)

(Showing layout of welded wire reinforcement and c bars)

TABLE

D	T	D_o (min.)	t
36 (900)	See applicable Standards	D + 2T	6 (150)
4'-0" (1.2 m)			6 (150)
5'-0" (1.5 m)			8 (200)

GENERAL NOTES

The flat slab top may be used in lieu of the tapered tops shown on Standards 602001, 602016, or 602306 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

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

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

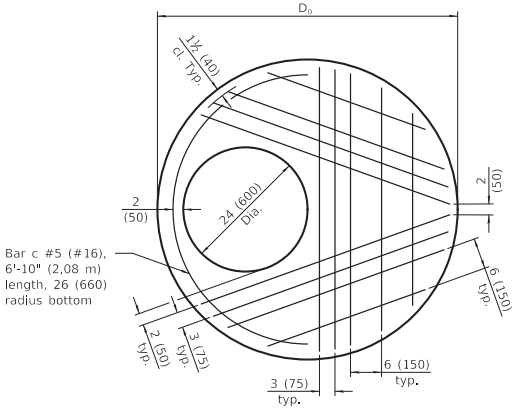
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-19

DATE	REVISIONS
1-1-19	Expanded / refined reinforcement options.
1-1-18	Revised for compliance with LRFD.

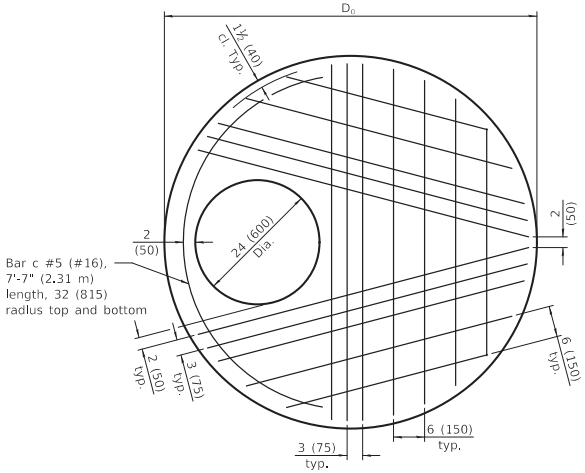
PRECAST REINFORCED CONCRETE FLAT SLAB TOP

STANDARD 602601-06



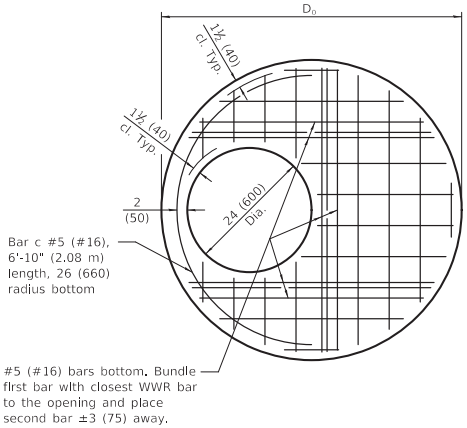
PLAN - FLAT SLAB TOP FOR D = 4'-0" (1,22 m)

(Showing layout of reinforcement bars and c bars)



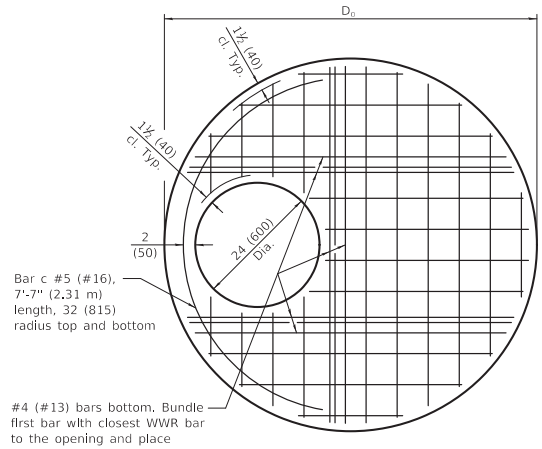
PLAN - FLAT SLAB TOP FOR D = 5'-0" (1,52 m)

(Showing layout of bottom reinforcement bars and c bars)



PLAN - FLAT SLAB TOP FOR D = 4'-0" (1,22 m)

(Showing layout of welded wire reinforcement and c bars)



PLAN - FLAT SLAB TOP FOR D = 5'-0" (1,52 m)

(Showing layout of welded wire reinforcement and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 36 (900)

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.60 sq. in./ft. (1270 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

FLAT SLAB TOP REINFORCEMENT FOR D = 4'-0" (1.22 m)

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

FLAT SLAB TOP REINFORCEMENT FOR D = 5'-0" (1.52 m)

Location	WWR (each direction)		Rebar (each direction except as noted)		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	* 0.40 sq. in./ft. (847 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

* Only one layer of WWR permitted to avoid congestion.

Illinois Department of Transportation

PASSED January 1, 2019

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019

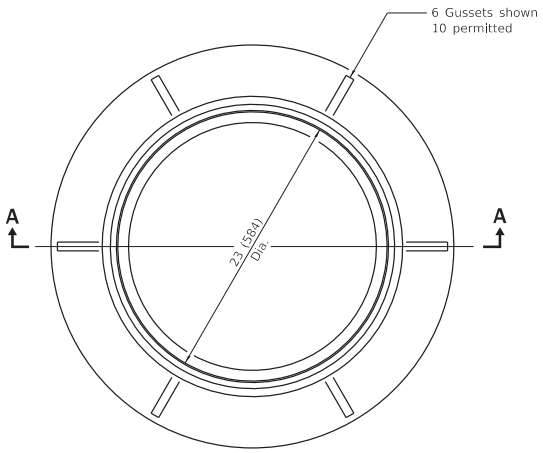
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

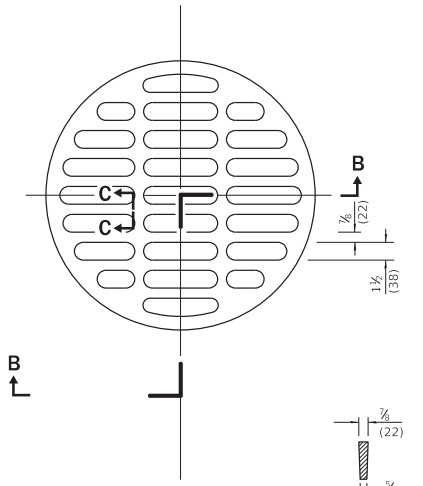
PRECAST REINFORCED CONCRETE FLAT SLAB TOP

(Sheet 2 of 2)

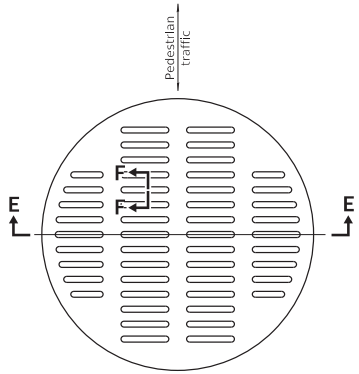
STANDARD 602601-06

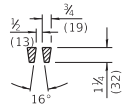


CAST FRAME

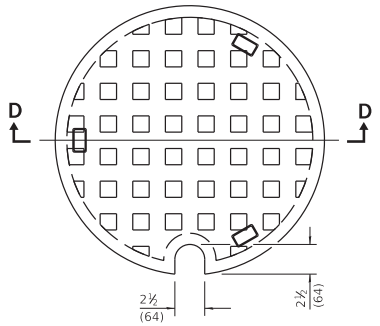


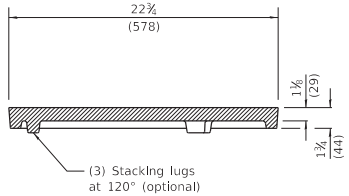
SECTION C-C





SECTION F-F

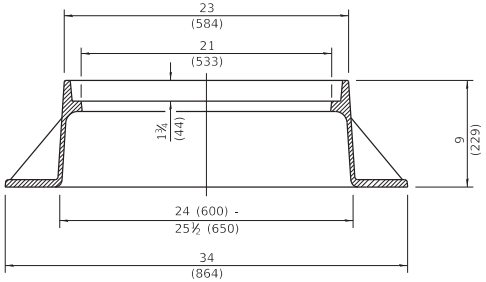




SECTION D-D

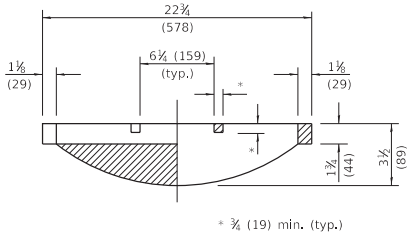
CAST CLOSED LID

Gray Iron Lid



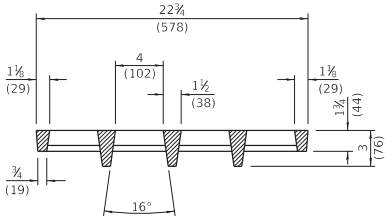
SECTION A-A

Gray Iron



SECTION B-B

CAST OPEN LID



SECTION E-E

ADA COMPLIANT CAST OPEN LID

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

Illinois Department of Transportation

PASSED January 1, 2020
ENGINEER OF POLICY AND PROCEDURES

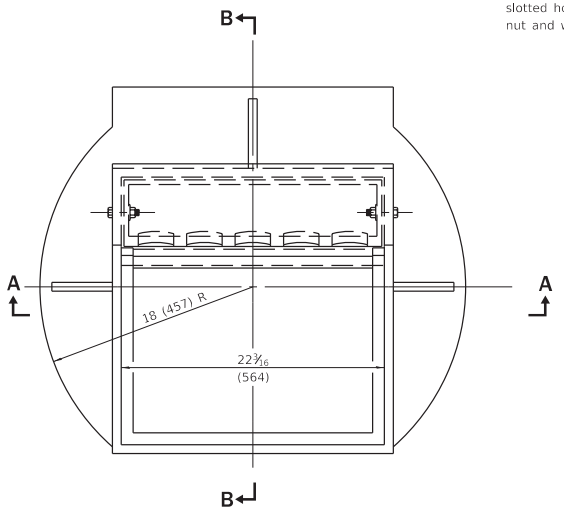
APPROVED January 1, 2020
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

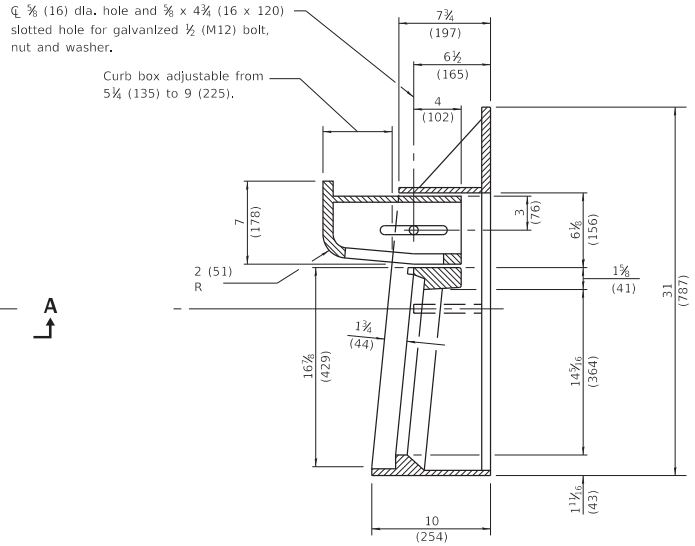
DATE	REVISIONS
1-1-20	Revised dimension in Section B-B
	of cast open lid.
1-1-15	Revised dimensioning of
	frame. Added ADA compliant
	open lid.
1-1-09	Switched units to English (metric).

FRAME AND LIDS TYPE 1

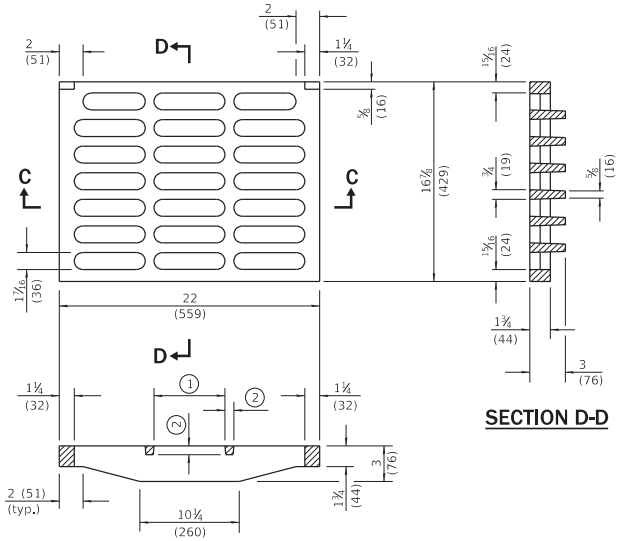
STANDARD 604001-05



CAST FRAME



SECTION B-B



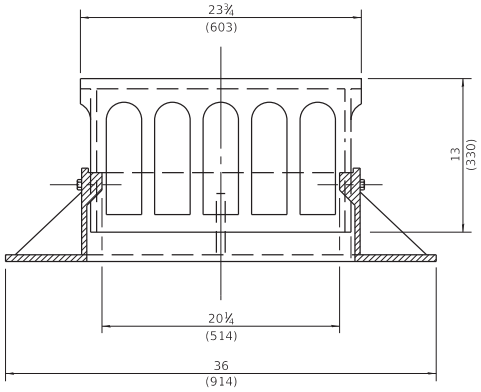
SECTION C-C

SECTION D-D

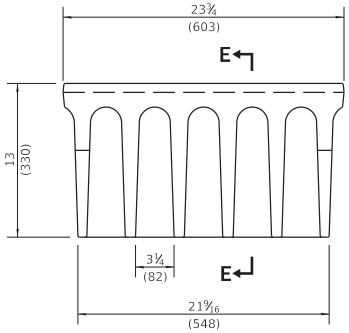
① = 6 (152) typ.

② = 3/4 (19) typ.

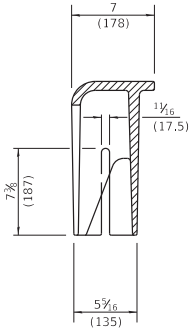
CAST GRATE



SECTION A-A



ALTERNATE CURB BOX



SECTION E-E

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

Illinois Department of Transportation

PASSED January 1, 2015
Michael Briand
ENGINEER OF POLICY AND PROCEDURES

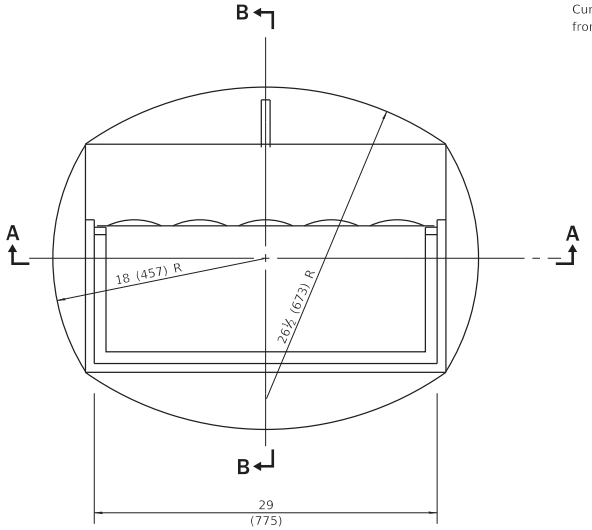
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15

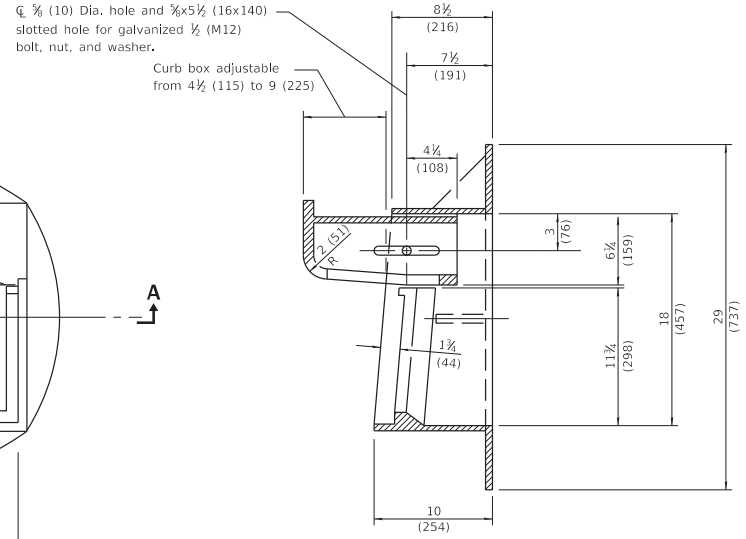
DATE	REVISIONS
1-1-15	Revised dimensions of
	frame and alternate curb
	box.
1-1-09	Switched units to
	English (metric).

FRAME AND GRATE TYPE 3

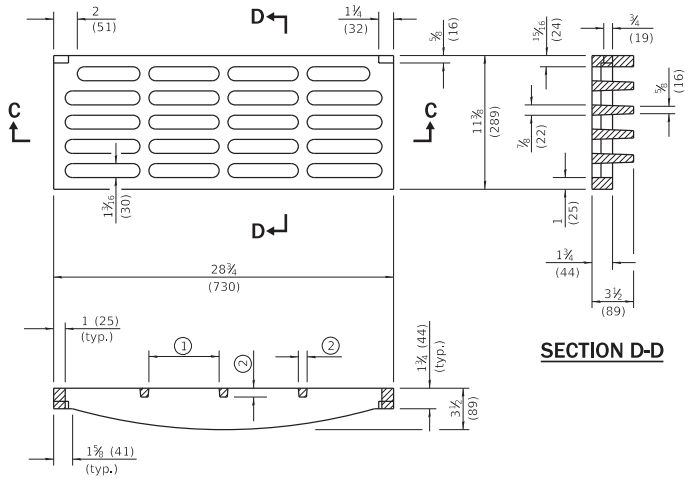
STANDARD 604006-05



CAST FRAME



SECTION B-B

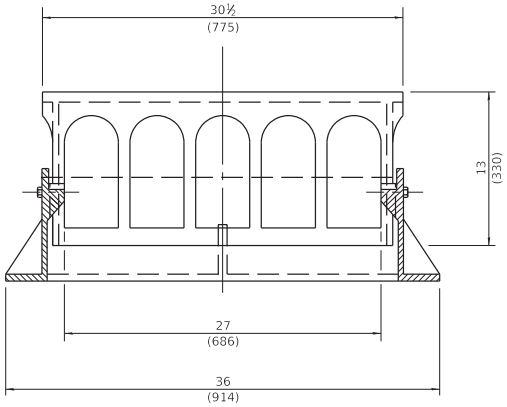


SECTION C-C

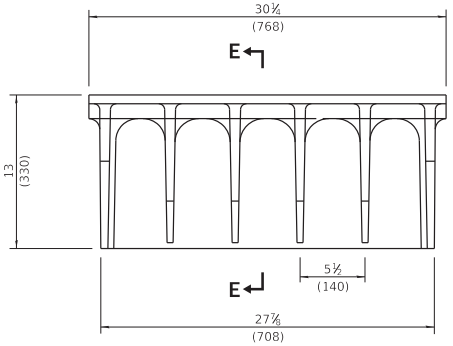
SECTION D-D

① = 6¼ (159) max. (typ.)
② = ¾ (19) min. (typ.)

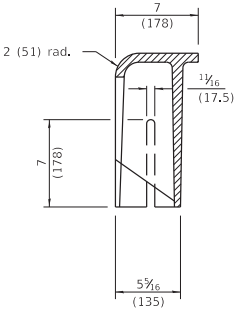
CAST GRATE



SECTION A-A



ALTERNATE CURB BOX



SECTION E-E

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

Illinois Department of Transportation

PASSED January 1, 2015
Michael Briand
ENGINEER OF POLICY AND PROCEDURES

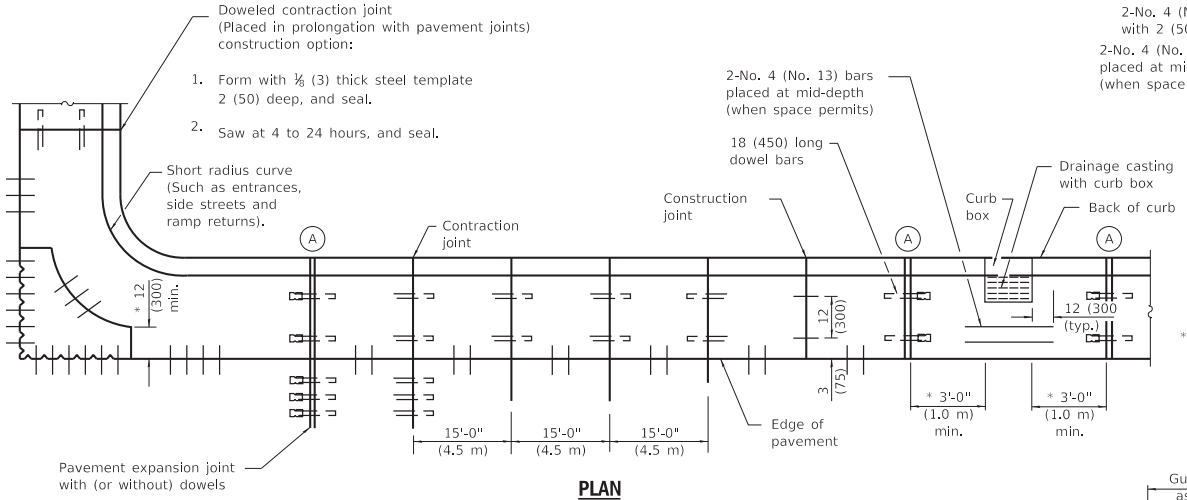
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15

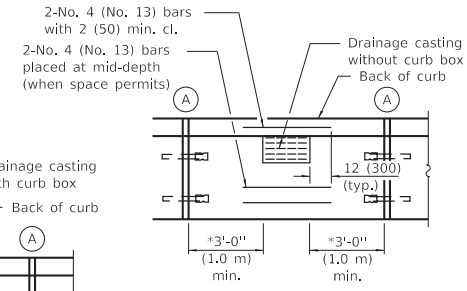
DATE	REVISIONS
1-1-15	Revised dimensions of frame
	and alternate curb box.
4-1-09	Switched units to
	English (metric).

FRAME AND GRATE TYPE 11

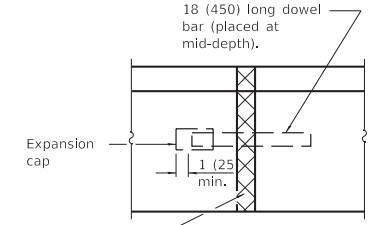
STANDARD 604051-04



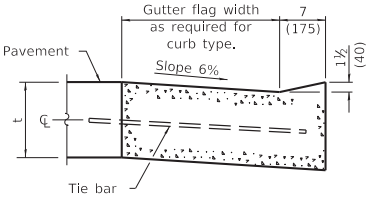
PLAN
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE



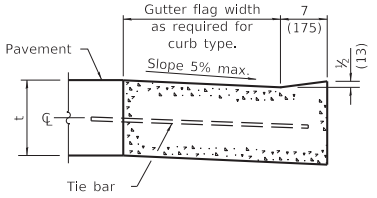
* This dimension shall be adjusted to align with joint on the adjacent pavement



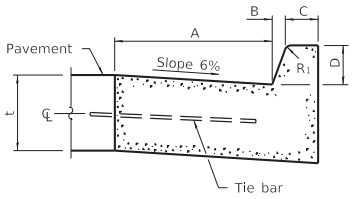
DETAIL (A)
EXPANSION JOINT



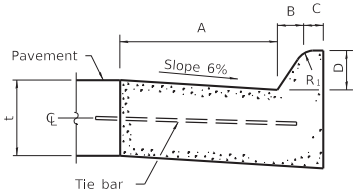
DEPRESSED CURB (TYPICAL)



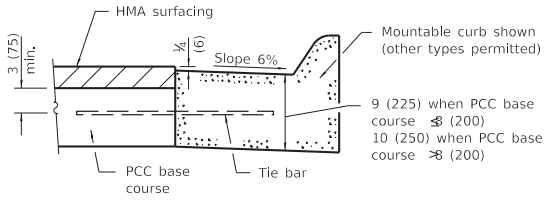
DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED



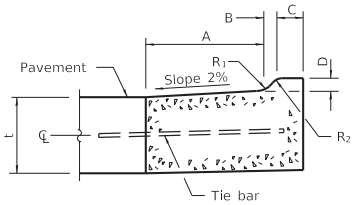
BARRIER CURB



MOUNTABLE CURB



ADJACENT TO PCC BASE COURSE WITH HMA SURFACING



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

TABLE OF DIMENSIONS
BARRIER CURB

TYPE	A	B	C	D	R_1
B-6.06 ✱ (B-15.15)	6 (150)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.12 (B-15.3)	12 (300)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.18 (B-15.45)	18 (450)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.24 (B-15.60)	24 (600)	1 (25)	6 (150)	6 (150)	1 (25)
B-9.12 (B-22.30)	12 (300)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.18 (B-22.45)	18 (450)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.24 (B-22.60)	24 (600)	2 (50)	5 (125)	9 (225)	1 (25)

✱ For corner islands only.

TABLE OF DIMENSIONS
MOUNTABLE CURB

TYPE	A	B	C	D	R_1	R_2
M-2.06 (M-5.15)	6 (150)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-2.12 (M-5.30)	12 (300)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-4.06 (M-10.15)	6 (150)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.12 (M-10.30)	12 (300)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.18 (M-10.45)	18 (450)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.24 (M-10.60)	24 (600)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-6.06 (M-15.15)	6 (150)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.12 (M-15.30)	12 (300)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.18 (M-15.45)	18 (450)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.24 (M-15.60)	24 (600)	6 (150)	2 (50)	6 (150)	2 (50)	NA

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.

Illinois Department of Transportation

PASSED January 1, 2018
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018
ENGINEER OF DESIGN AND ENVIRONMENT

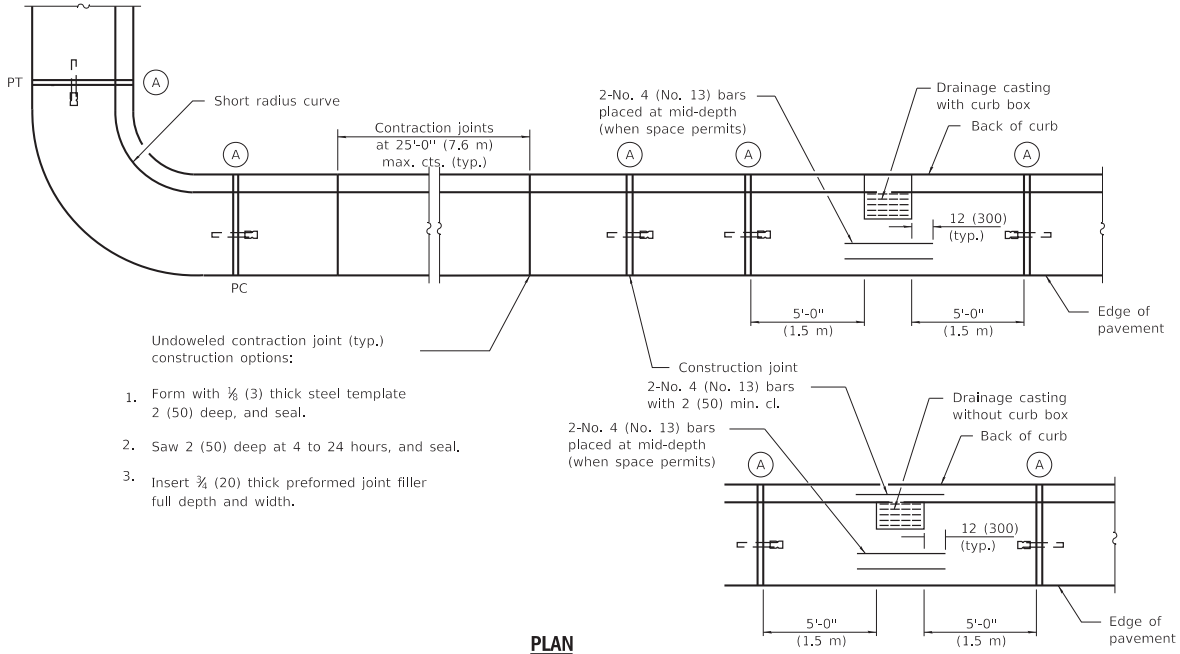
ISSUED 1-1-07

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).

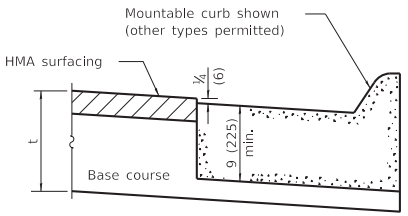
CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 1 of 2)

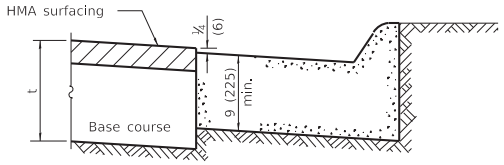
STANDARD 606001-07



PLAN

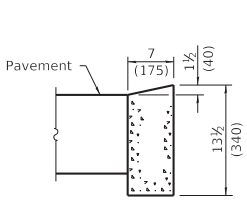


ON DISTURBED SUBGRADE

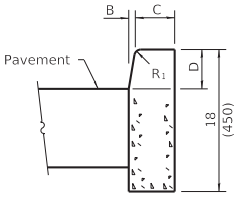


ON UNDISTURBED SUBGRADE

ADJACENT TO FLEXIBLE PAVEMENT

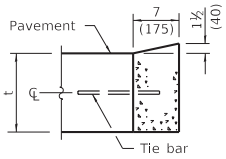


DEPRESSED CURB

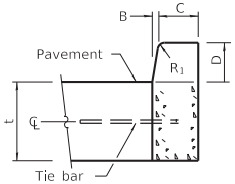


BARRIER CURB

ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB



BARRIER CURB

ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

CONCRETE CURB TYPE B

Illinois Department of Transportation

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

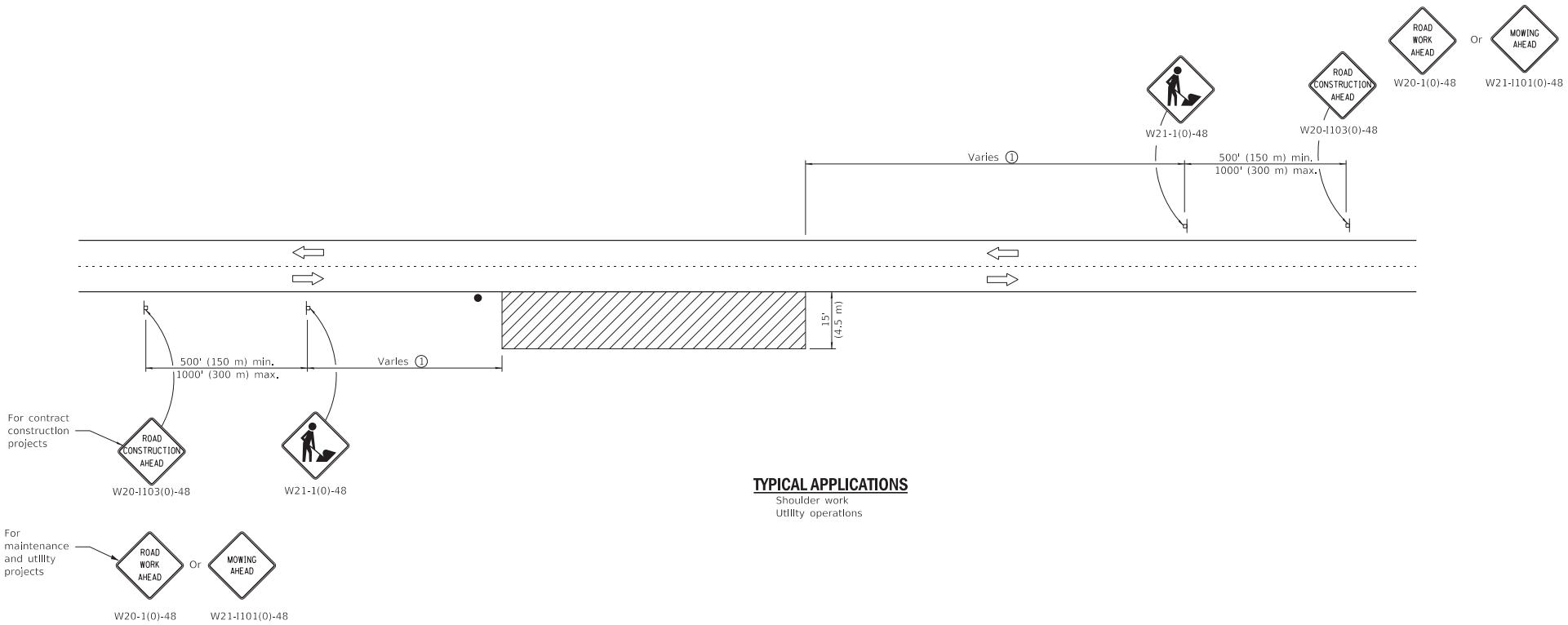
APPROVED January 1, 2018
Maureen M. Beck
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

STANDARD 606001-07



TYPICAL APPLICATIONS

Shoulder work
Utility operations

SYMBOLS

Work area

Sign

Flagger with traffic control sign when required

(1) Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed ½ the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

GENERAL NOTES

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

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

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

Illinois Department of Transportation

PASSED January 1, 2014
ENGINEER OF SAFETY ENGINEERING

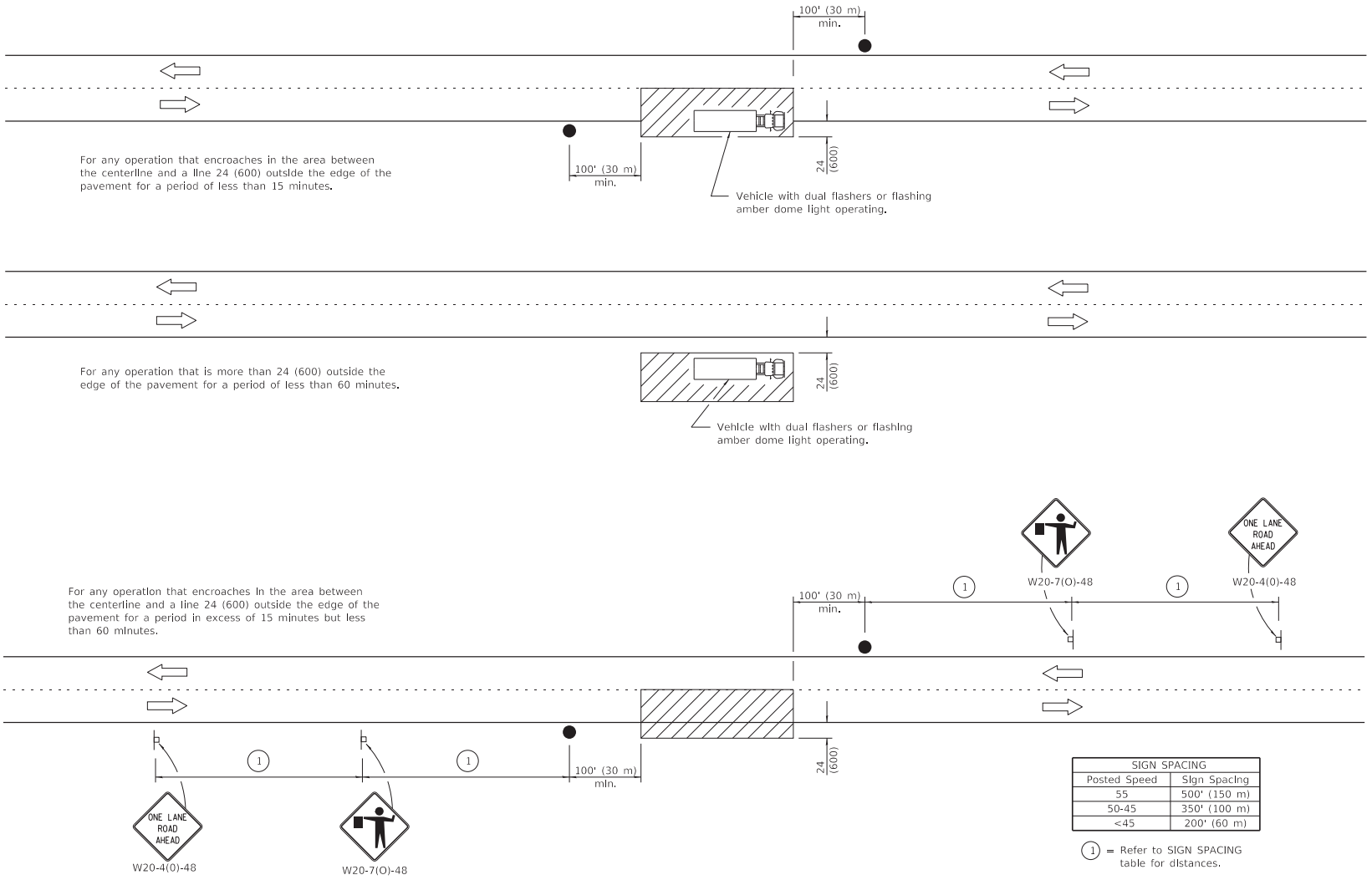
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text 'WORKERS'
	sign.

OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY

STANDARD 701011-04



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.

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

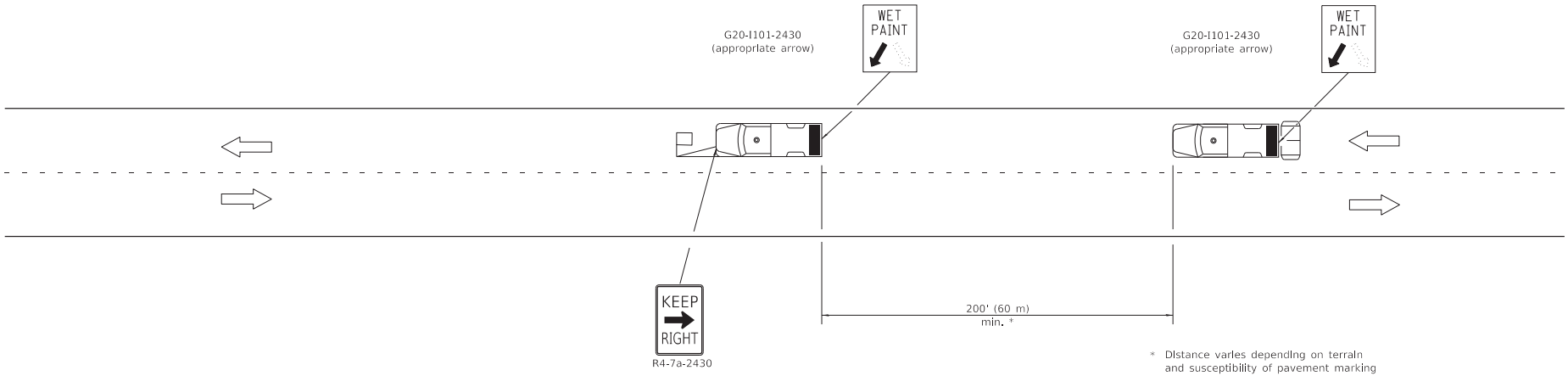
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

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



* Distance varies depending on terrain and susceptibility of pavement marking or crack sealant to wheel tracking.

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 shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426.

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

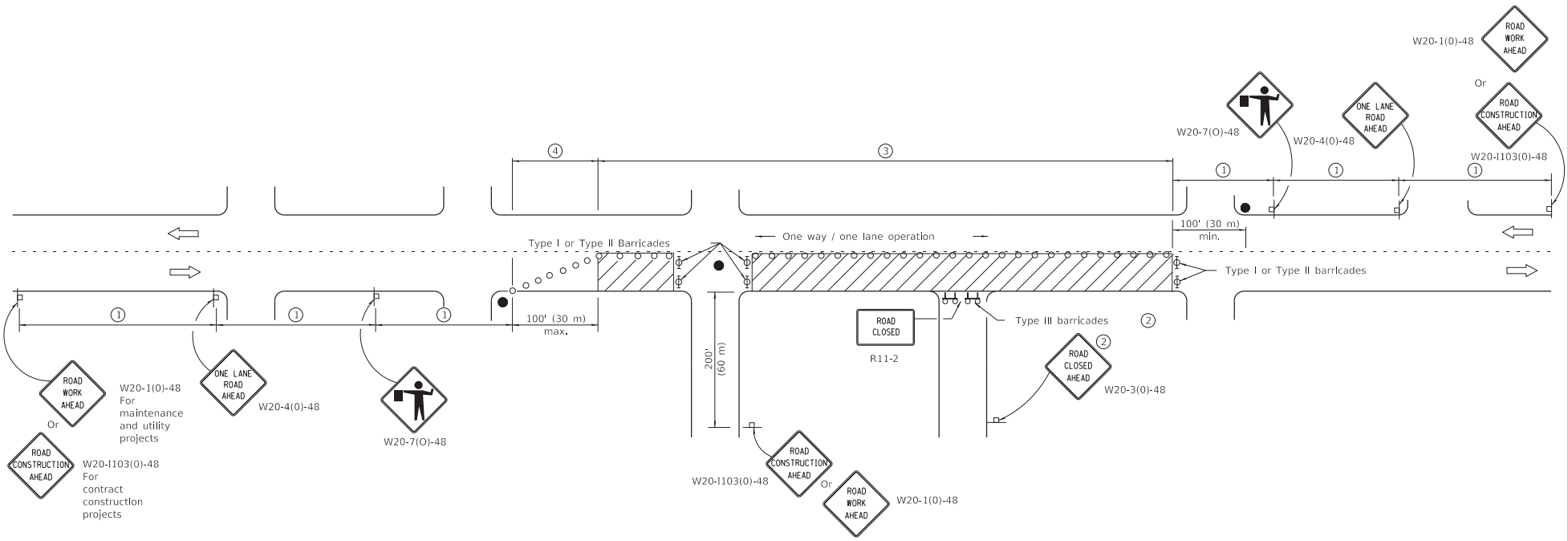
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

DATE	REVISIONS
1-1-09	Switched units to
	English (metric). Omitted
	Pass With Care sign.
1-1-00	Elim. speed restrictions
	In Standard title.

LANE CLOSURE 2L, 2W MOVING OPERATIONS- DAY ONLY

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 sideroad closures.

(3) Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(4) Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

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

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

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

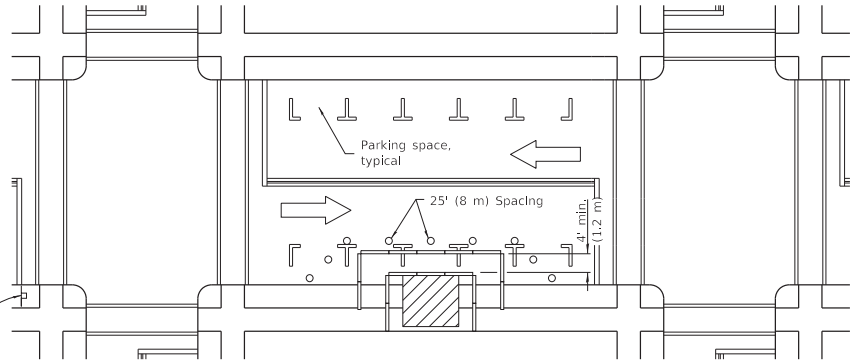
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06



① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

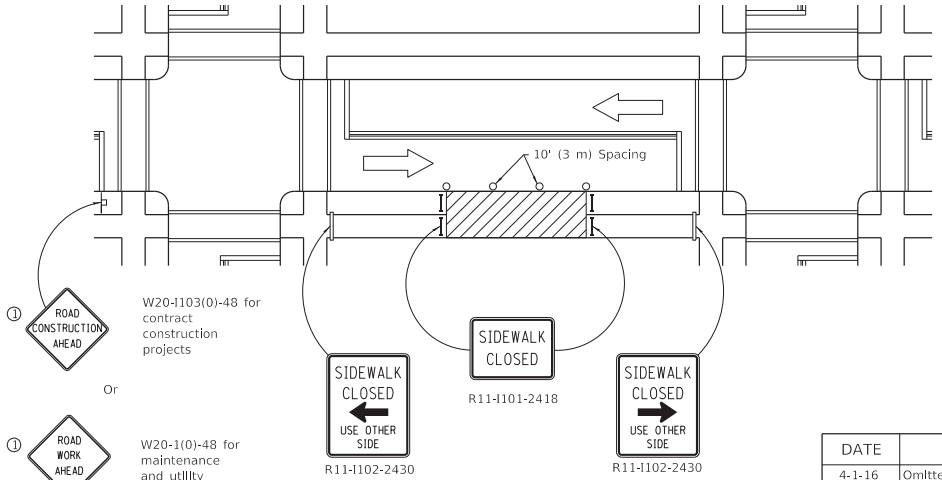
① ROAD WORK AHEAD — W20-1(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD — W20-1(0)-48 for maintenance and utility projects

SIDEWALK CLOSURE

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

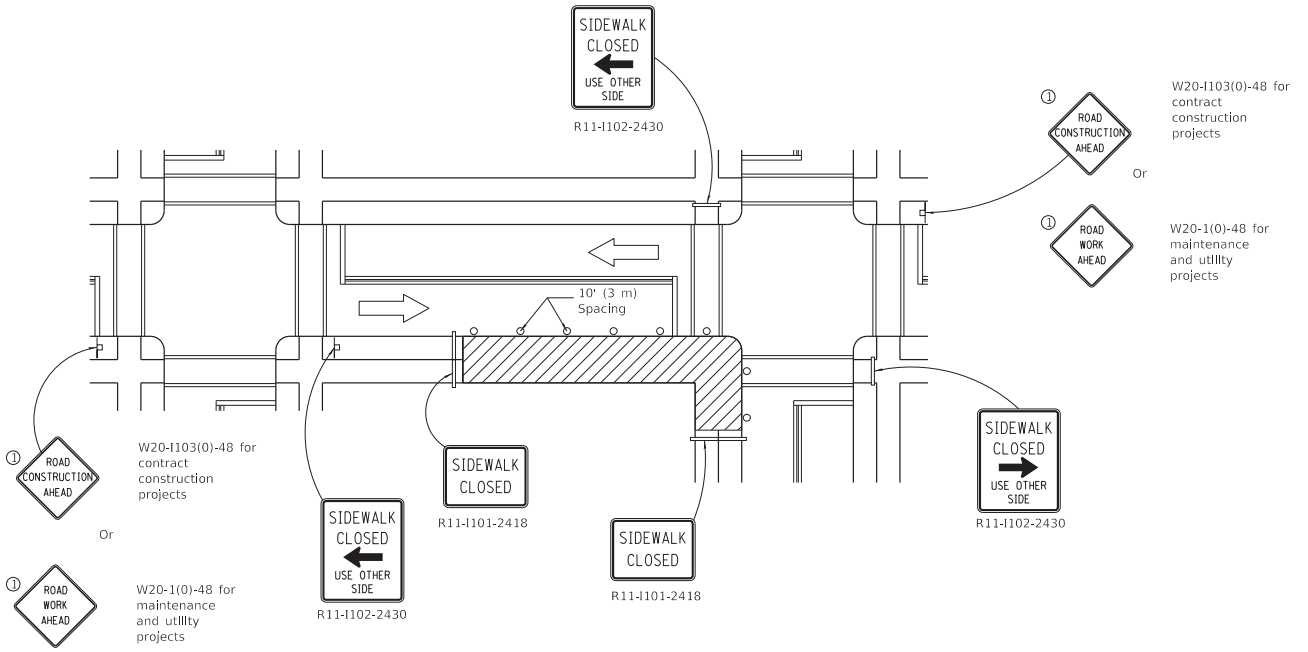
ISSUED 1-1-07

DATE	REVISIONS
4-1-16	Omitted orange safety fence
	from standard as this is
	covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of
	plan views. Renamed Std.

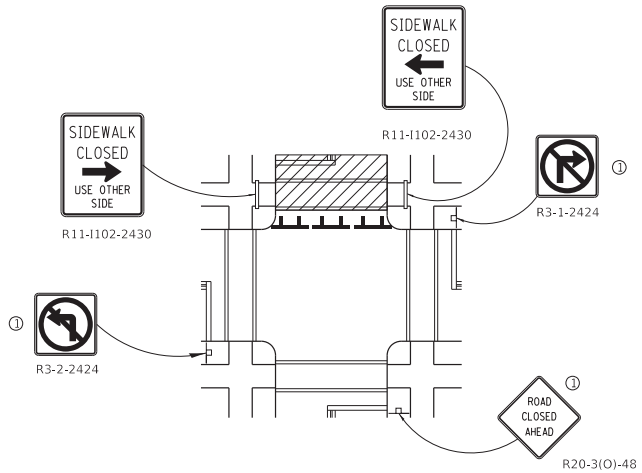
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

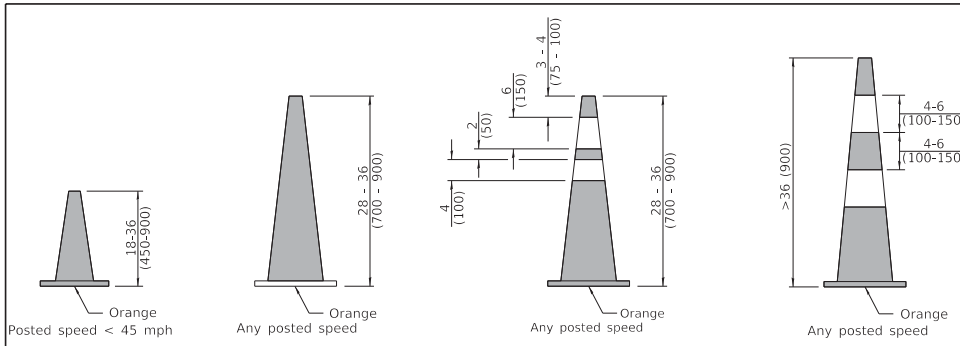
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

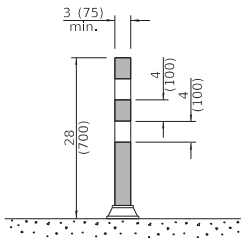
STANDARD 701801-06



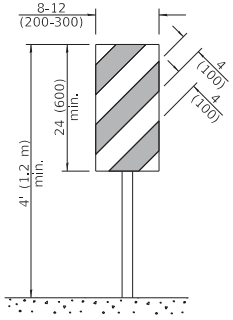
DAYTIME USE

DAY OR NIGHTTIME USE

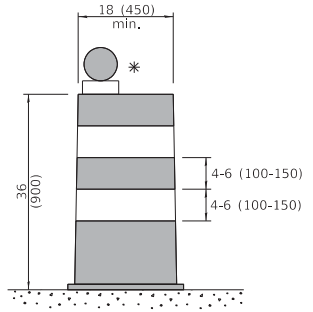
CONES



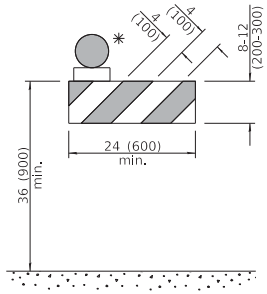
TUBULAR MARKER



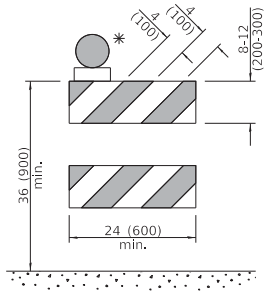
VERTICAL PANEL
POST MOUNTED



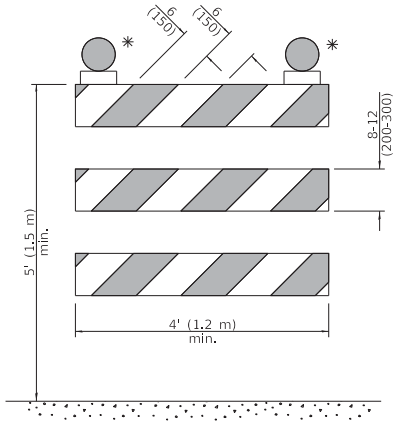
DRUM



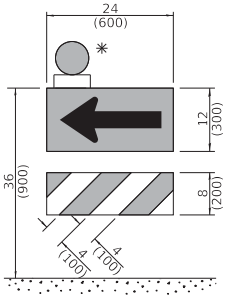
TYPE I BARRICADE



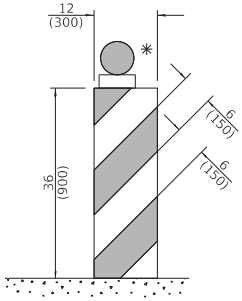
TYPE II BARRICADE



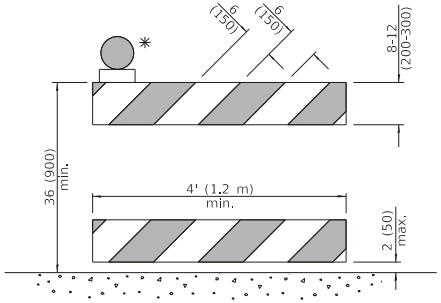
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

✳ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

Illinois Department of Transportation

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

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

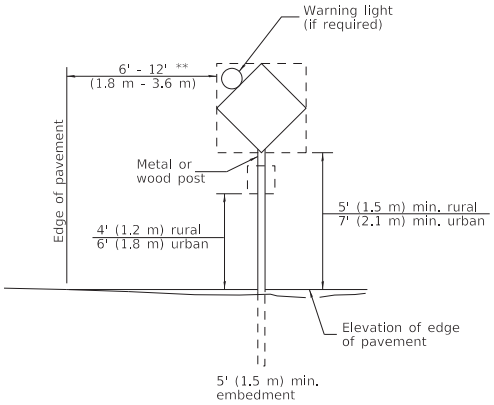
ISSUED 1-1-13

DATE	REVISIONS
1-1-19	Revised cone usage and
	added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from
	orange to white background.

TRAFFIC CONTROL DEVICES

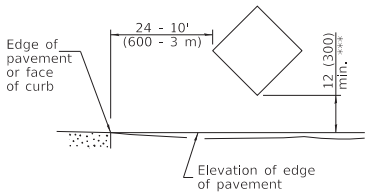
(Sheet 1 of 3)

STANDARD 701901-08



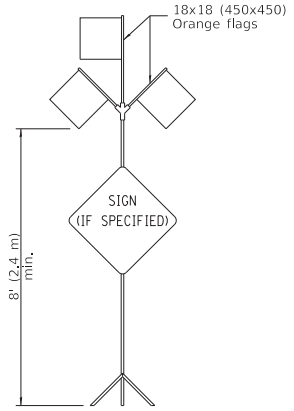
POST MOUNTED SIGNS

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



SIGNS ON TEMPORARY SUPPORTS

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



HIGH LEVEL WARNING DEVICE

G20-I104(0)-6036

G20-I105(0)-6024

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

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

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

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

WORK LIMIT SIGNING

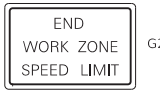
W21-III5(0)-3618

R2-1-3648

R10-I108p-3618 ****

R2-I106p-3618

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

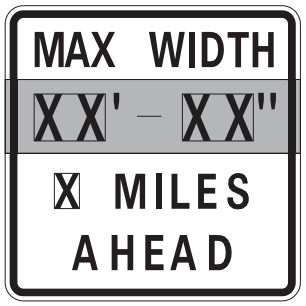


G20-I103-6036

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

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

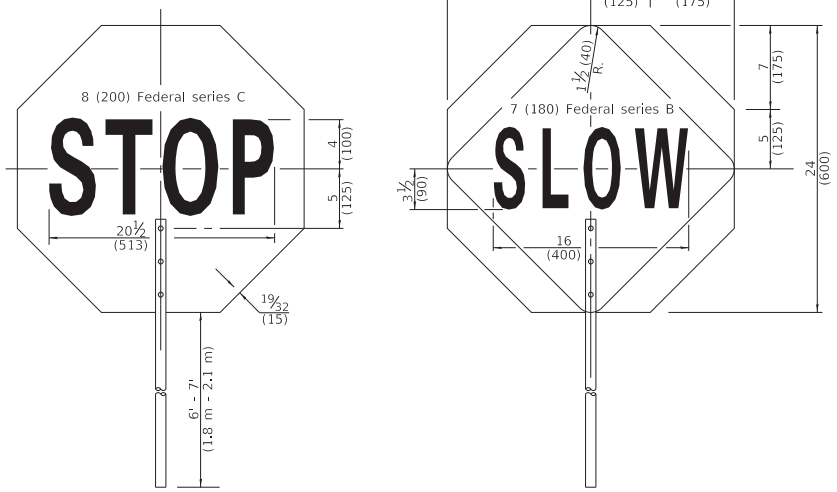
**** R10-I108p shall only be used along roadways under the juristiction of the State.



W12-I103-4848

WIDTH RESTRICTION SIGN

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



FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

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

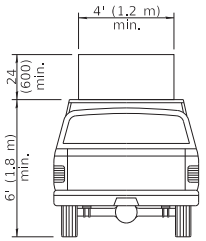
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

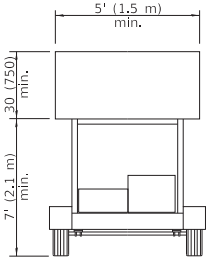
TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

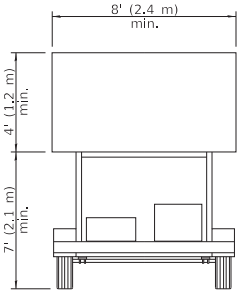
STANDARD 701901-08



TYPE A
ROOF
MOUNTED

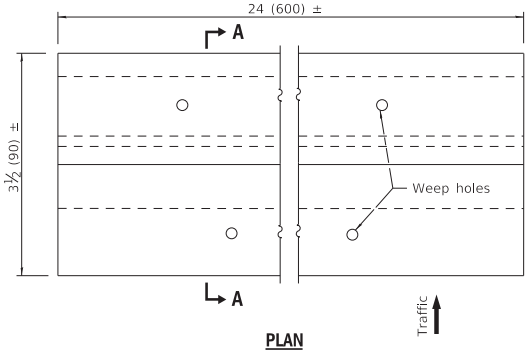


TYPE B
ROOF OR TRAILER
MOUNTED

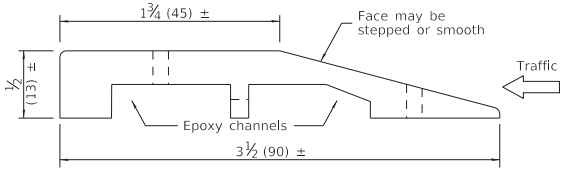


TYPE C
TRAILER
MOUNTED

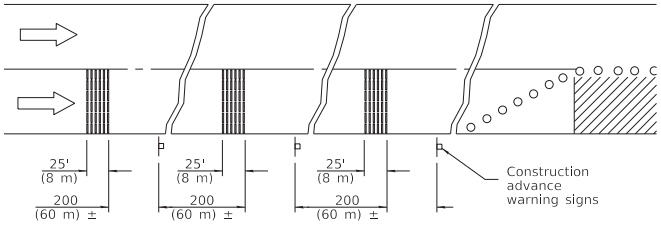
ARROW BOARDS

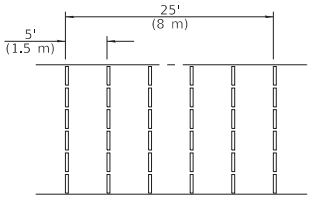


PLAN



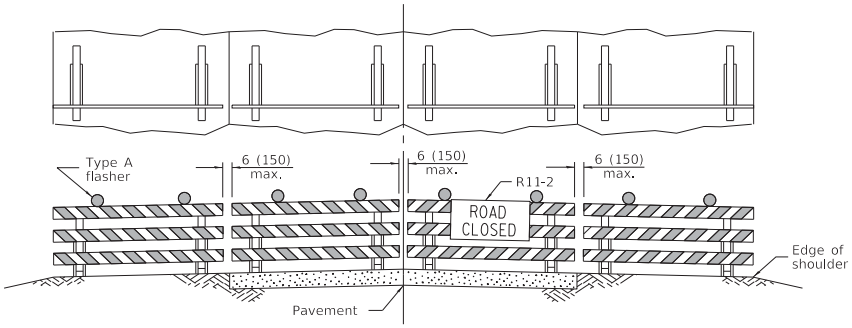
SECTION A-A





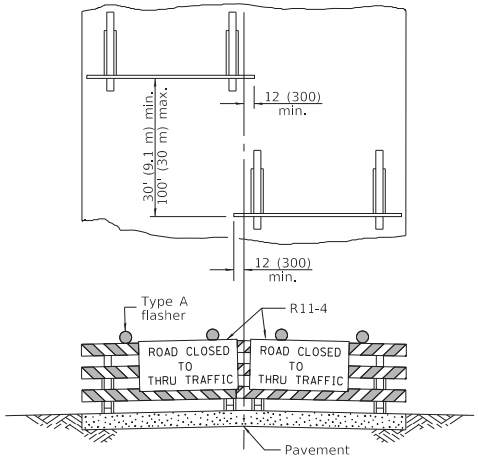
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

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



ROAD CLOSED TO THRU TRAFFIC

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

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation

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

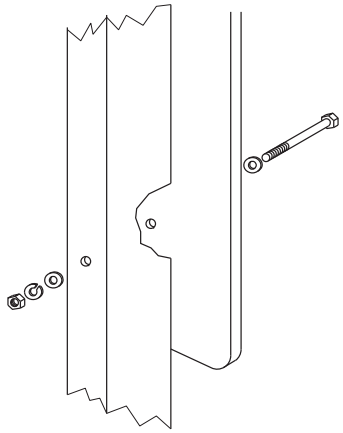
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

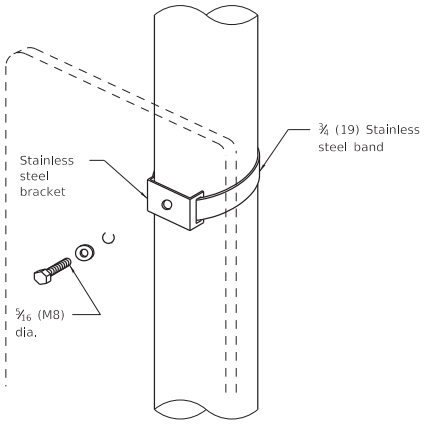
TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

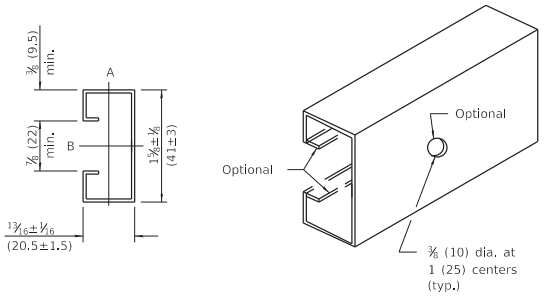


Sign panel 36 (900) wide or less

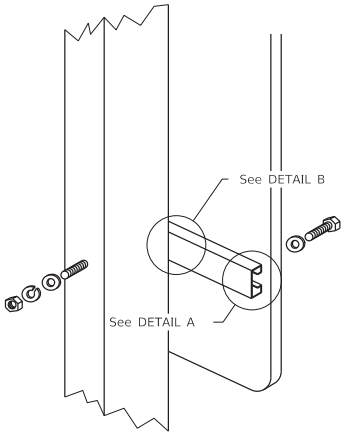


Sign panel 36 (900) wide or less

Section modulus (minimum)	Axis A	Axis B
Steel	0.050 in.³ (819 mm³)	0.105 in.³ (1720 mm³)
Aluminum	0.150 In.³ (2458 mm³)	0.315 In.³ (5162 mm³)

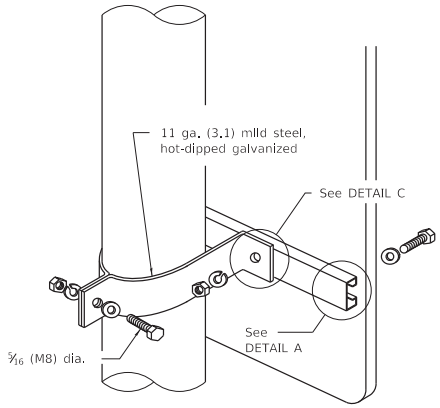


SUPPORTING CHANNEL DETAILS



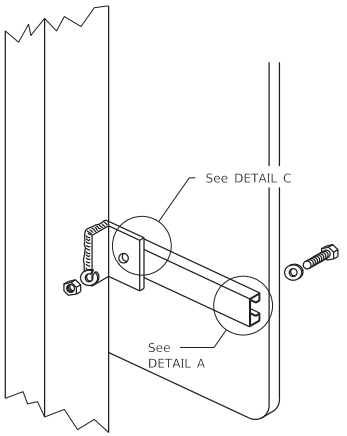
Sign panel over 36 (900) wide

WOOD OR TELESCOPING STEEL POSTS

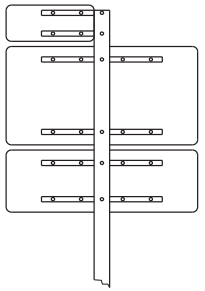


Sign panel over 36 (900) wide

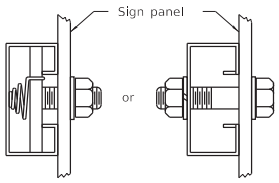
LIGHT OR SIGNAL STANDARDS



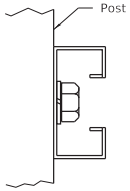
BREAKAWAY STEEL TUBING POSTS
(All sign panel sizes)



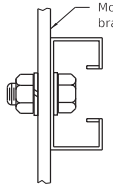
ROUTE MARKER ASSEMBLY



DETAIL A



DETAIL B



DETAIL C

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

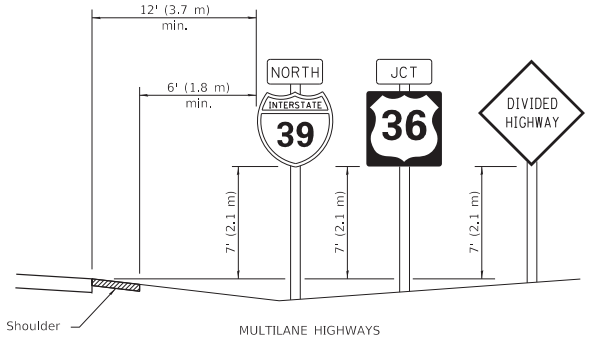
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

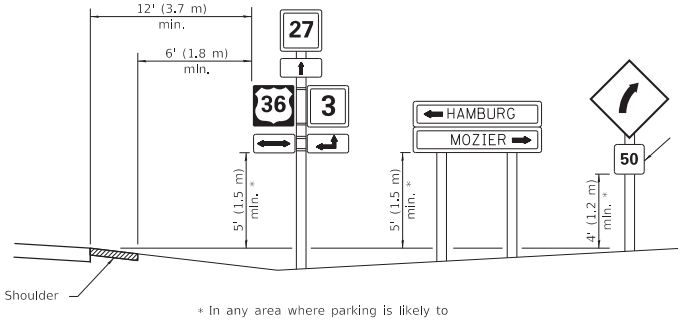
DATE	REVISIONS
1-1-09	Switched units to
	English (metric).
1-1-97	Renum. Standard 2319-6.

SIGN PANEL MOUNTING DETAILS

STANDARD 720001-01

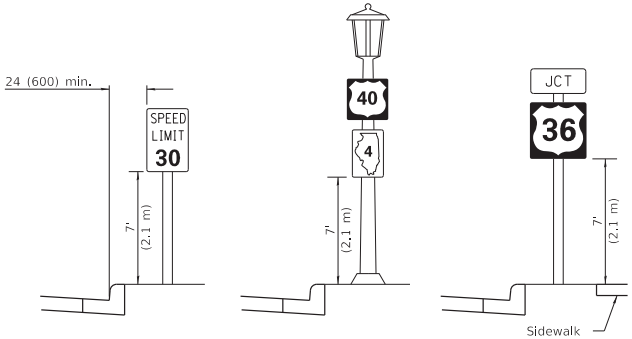


MULTILANE HIGHWAYS



* In any area where parking is likely to occur or where there are obstructions to view or where signs are located over sidewalks, the height shall be at least 7' (2.1 m).

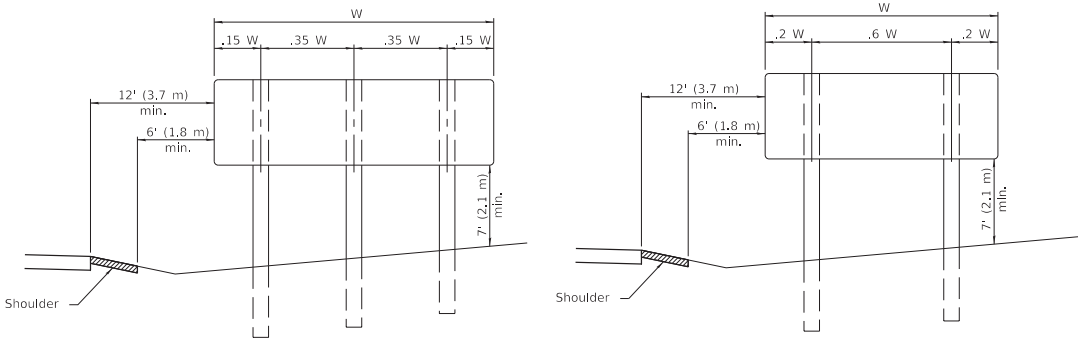
TWO LANE RURAL HIGHWAYS



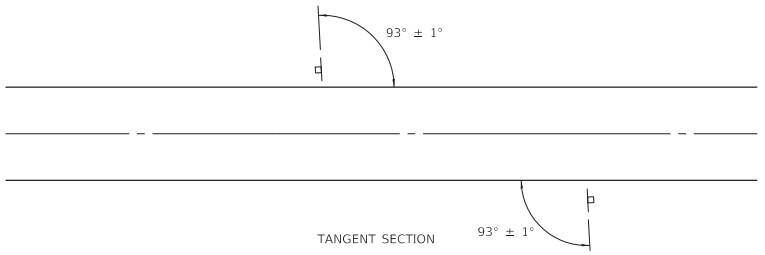
URBAN LOCATIONS

TYPICAL INSTALLATIONS

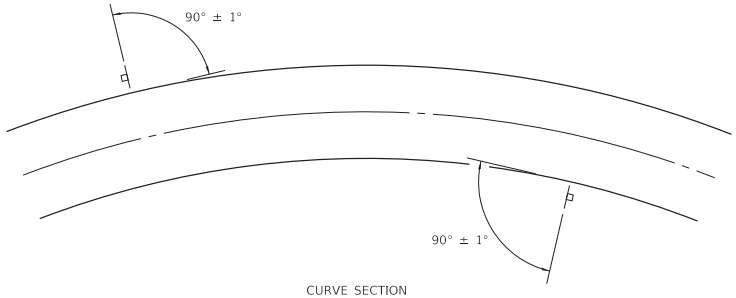
Signs in any area shall be erected to a uniform height above the edge of the pavement.



POST SPACING FOR NON-FREEWAY SIGN PANELS



TANGENT SECTION



CURVE SECTION

GROUND MOUNT SIGN POSITIONING

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

Illinois Department of Transportation

PASSED January 1, 2014
ENGINEER OF OPERATIONS

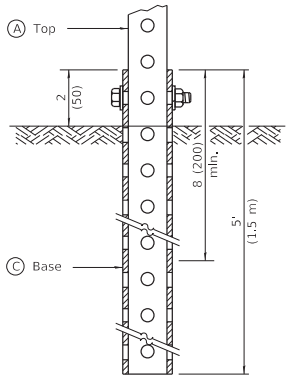
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

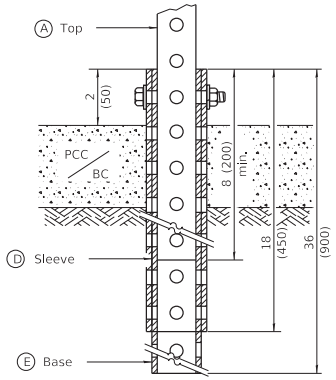
DATE	REVISIONS
1-1-14	Added shoulders and slopes.
	Changed sign distances
	from roadway and shoulder.
1-1-12	Rev. sign elev. for multilane
	hwy's. Revised sign elev. and
	dist. to curb for rural loc.

SIGN PANEL ERECTION DETAILS

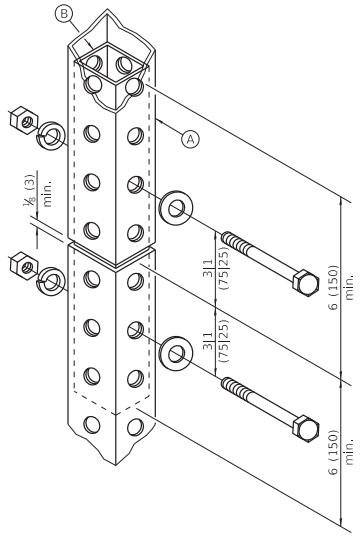
STANDARD 720006-04



GROUND MOUNT DETAIL



PAVEMENT MOUNT DETAIL



SPLICE DETAIL

A	2 x 2 x var. (51 x 51 var.)
B	1⅜ x 1¾ x 12 (44 x 44 x 300)
C	2¼ x 2¼ x 60 (57 x 57 x 1500)
D	2½ x 2½ x 18 (64 x 64 x 450)
E	2¼ x 2¼ x 36) (57 x 57 x 900)

GENERAL NOTES

All bolts ⅜ (M10) hex head zinc or cadmium plated.

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

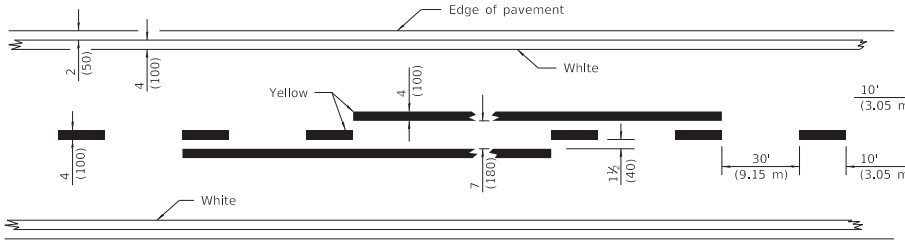
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

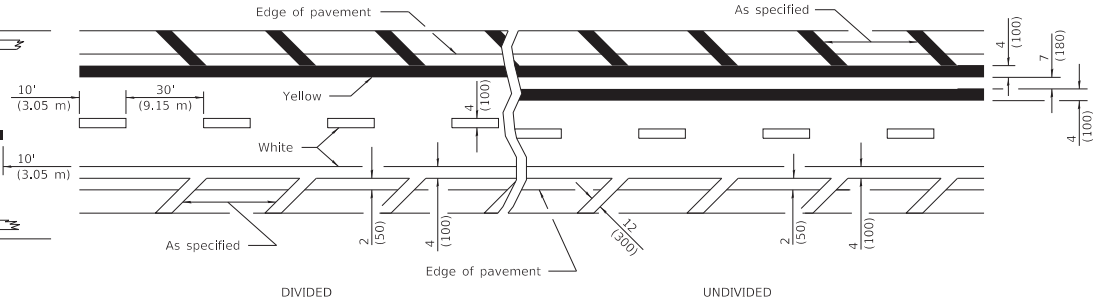
ISSUED 1-1-07

DATE	REVISIONS
1-1-09	Switched units to
	English (metric).
1-1-07	New Standard. Used to
	be part of Standard
	720006.

TELESCOPING STEEL SIGN SUPPORT

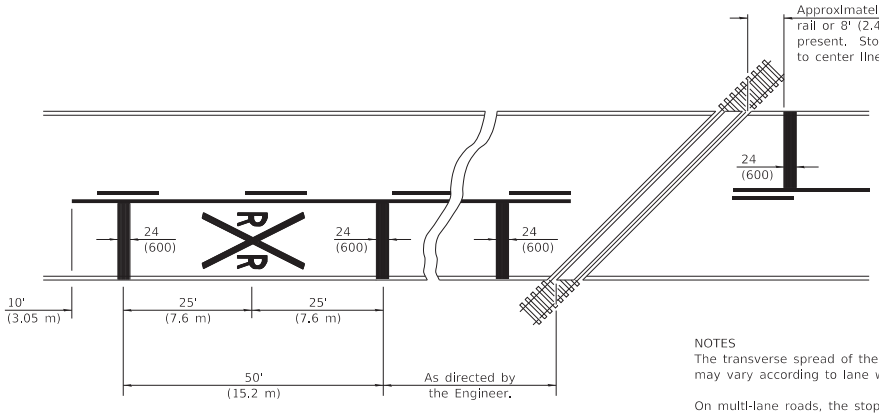
STANDARD 728001-01

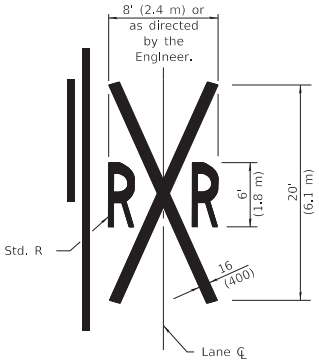




2 LANE **MULTI LANE**

LANE AND EDGE LINES





NOTES
The transverse spread of the "X" may vary according to lane width.

On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

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

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF OPERATIONS

APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

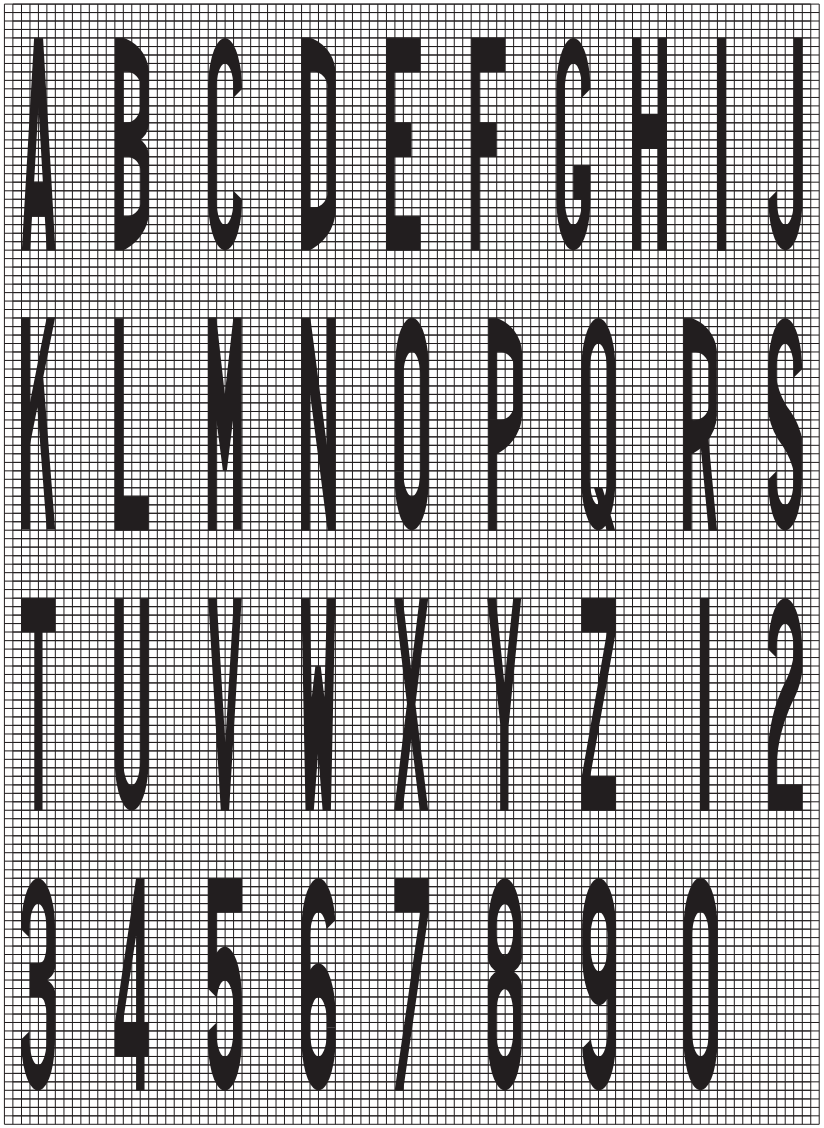
ISSUED 1-1-07

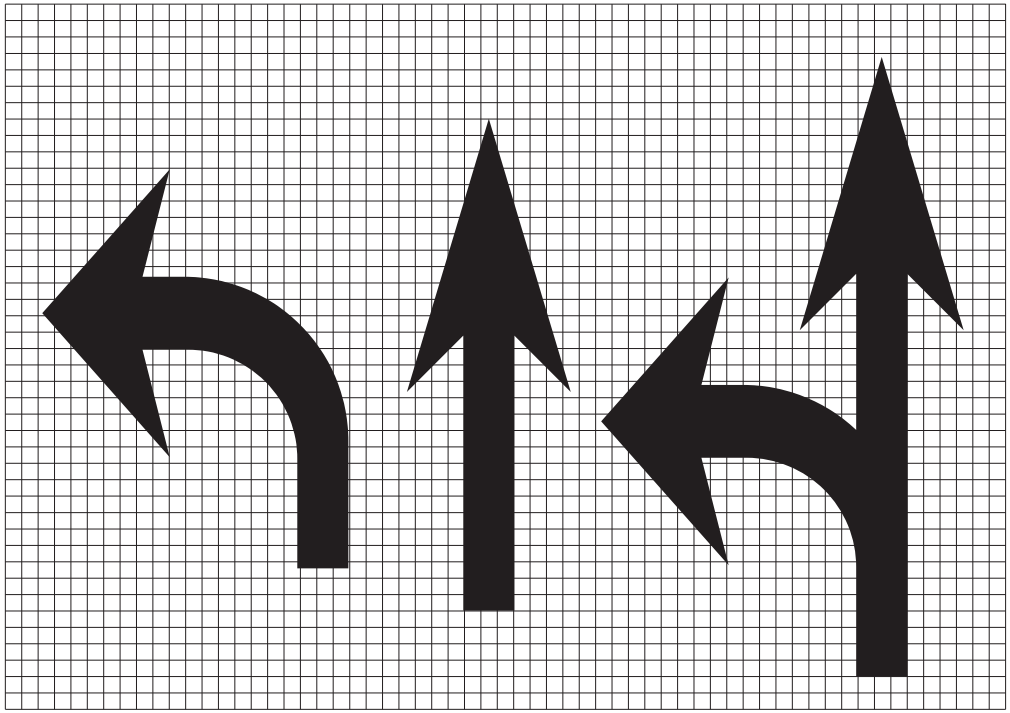
DATE	REVISIONS
1-1-15	Added symbols. Revised
	bike symbol. Revised note
	for stop line at RR crossing.
1-1-14	Added bike symbol. Renamed
	'LANE DROP ARROW' detail to
	'LANE-REDUCTION ARROW'.

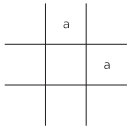
TYPICAL PAVEMENT MARKINGS

(Sheet 1 of 3)

STANDARD 780001-05







Legend Height	Arrow Size	a
6' (1.8 m)	Small	2.9 (74)
8' (2.4 m)	Large	3.8 (96)

The space between adjacent letters or numerals should be approximately 3 (75) for 6' (1.8 m) legend and 4 (100) for 8' (2.4 m) legend.

LETTER AND ARROW GRID SCALE

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF OPERATIONS

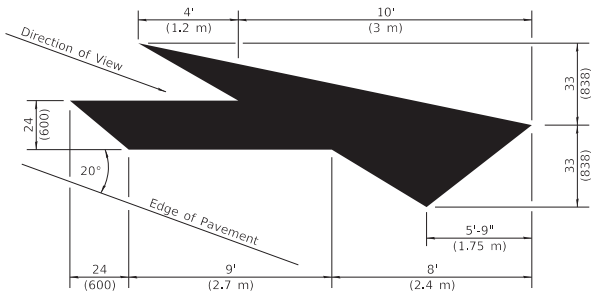
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

TYPICAL PAVEMENT MARKINGS

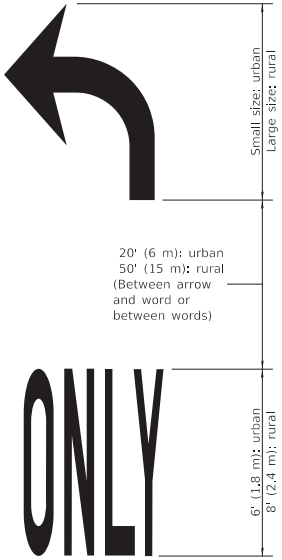
(Sheet 2 of 3)

STANDARD 780001-05

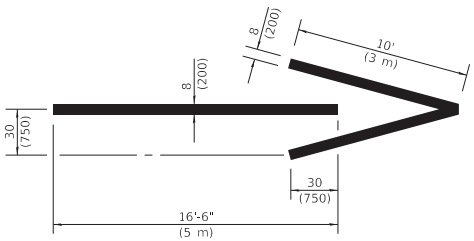


LANE-REDUCTION ARROW

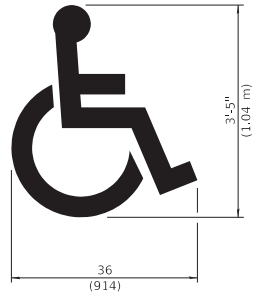
Right lane-reduction arrow shown.
Use mirror image for left lane.



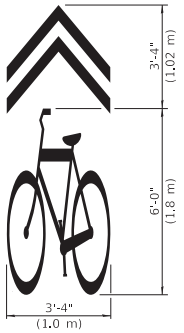
WORD AND ARROW LAYOUT



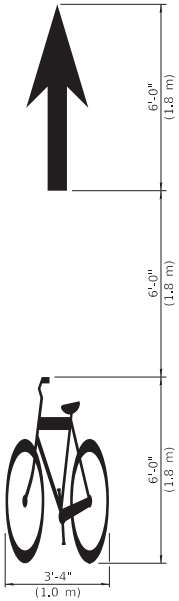
WRONG WAY ARROW



INTERNATIONAL SYMBOL OF ACCESSILITY



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

ISSUED 1-1-15

TYPICAL PAVEMENT MARKINGS

(Sheet 3 of 3)

STANDARD 780001-05

APPENDIX 3

AMENDING THE REQUIREMENTS OF BIDDERS FOR CONSTRUCTION PROJECTS
IRMA CONTRACTUAL INSURANCE GUIDELINES

Ordinance No. 3733

AN ORDINANCE OF THE VILLAGE OF VILLA PARK, DUPAGE COUNTY, ILLINOIS AMENDING THE REQUIREMENTS OF BIDDERS FOR CONSTRUCTION PROJECTS

WHEREAS, the Village of Villa Park (the "*Village*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

WHEREAS, section 8-9-1 of the Illinois Municipal Code (65 ILCS 5/8-9-2) allows the Village to require competitive bidding after advertising for bids in the manner prescribed by ordinance; and,

WHEREAS, the President and Board of Trustees desire to adopt purchasing procedures to provide for additional requirements of bidders for construction projects to have active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training and to have bidders show three similar projects they constructed within the last five years.

NOW, THEREFORE, BE IT ORDAINED by the President and Board of Trustees of the Village of Villa Park, DuPage County, Illinois, as follows:

Section 1. That Section 2-219 of the Villa Park Municipal Code, as amended, be and is hereby amended by placing the existing text as subsection A. and adding a new subsection B. to read as follows:

"B. A responsible bidder for the construction of public works projects shall meet and submit evidence of compliance with the following requirements:

(1) All applicable laws prerequisite to doing business in the State of Illinois,
(2) A federal employer tax identification number or social security number,
(3) Provision of Section 2000(e) of Chapter 21, Title 42 of the United States Code and Federal Executive Order No. 11246 as amended by Executive Order No. 11375 (known as the Equal Opportunity Employer provisions),
(4) Certificates of insurance indicating the following coverage's: general liability, worker's compensation, completed operations, automobile, hazardous occupation and product liability
(5) Compliance with all provisions of the Illinois Prevailing Wage Act, including wages, medical and hospitalization insurance and retirement for those trades covered in the Act,
(6) The bidder and all bidder's sub-contractors must participate in active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training for each of the trades of work contemplated under the proposed contract,
(7) All contractors and sub-contractors are required to file certified payrolls as specified in Illinois Pubic Act 94-0515, and follow all provisions of the Employee Classification Act (820 ILCS 185/1 et seq.), and

(8) All bidders must provide three (3) projects of a similar nature constructed in the immediate past five (5) years with the name, address and telephone number of the contact person having knowledge of the project along with three (3) references (name, address, and telephone number) with knowledge of the integrity and business practices of the bidder."

Section 2. This Ordinance shall be in full force and effect upon its passage, approval, and publication as provided by law.

Passed this 11 day of February, 2013.

AYES: ALL

NAYS: Aiello Bulthuis

ABSENT: _____

Approved this 11 day of February, 2013.

Village President

Attest:

Village Clerk

VILLAGE OF VILLA PARK CORPORATE SEAL DU PAGE COUNTY, ILL.

Published in pamphlet form:

2-11, 2013

IRMA
CONTRACTUAL INSURANCE GUIDELINES

I. INSURANCE REQUIREMENTS

Contractor shall procure and maintain, for the duration of the contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

A. Insurance Services Office Commercial General Liability occurrence form CG 0001 with the member named as additional insured, on a form at least as broad as the attached sample endorsement including ISO Additional Insured Endorsement CG 2010 (Exhibit A), CG 2026 (Exhibit B).

CG2037 - Completed Operations – (Exhibit C)
Required if box is checked ☒ ; and

B. Owners and Contractors Protective Liability (OCP) policy with the member as insured
Required if box is checked ☒ ; and

C. Insurance Service Office Business Auto Liability coverage form number CA 0001, Symbol 01 "Any Auto."

D. Workers' Compensation as required by the Workers' Compensation Act of the State of Illinois and Employers' Liability insurance.
Coverage required for employee exposure to lead, if box is checked ☒

E. Builder Risk Property Coverage with member as loss payee
Required if box is checked ☐**.**

F. Environmental Impairment/Pollution Liability Coverage for pollution incidents as a result of a claim for bodily injury, property damage or remediation costs from an incident at, on or migrating beyond the contracted work site. Coverage shall be extended to Non-Owned Disposal sites resulting from a pollution incident at, on or mitigating beyond the site; and also provide coverage for incidents occurring during transportation of pollutants.
Required if box is checked ☐**.**

MINIMUM LIMITS OF INSURANCE

Contractor shall maintain limits no less than the following, **if required under above scope**:

A. Commercial General Liability: $1,000,000 combined single limit per occurrence for bodily injury, and property damage and $1,000,000 per occurrence for personal injury. The general aggregate shall be twice the required occurrence limit. Minimum General Aggregate shall be no less than $2,000,000 or a project/contract specific aggregate of $1,000,000.

B. Owners and Contractors Protective Liability (OCP): $1,000,000 combined single limit per occurrence for bodily injury and property damage.

C. Business Automobile Liability: $1,000,000 combined single limit per accident for bodily injury and property damage.

D. Workers' Compensation and Employers' Liability: Workers' Compensation coverage with statutory limits and Employers' Liability limits of $500,000 per accident.

E. Builder's Risk: Shall insure against "All Risk" of physical damage, including water damage (flood and hydrostatic pressure not excluded), on a completed replacement cost basis.

F. Environmental Impairment/Pollution Liability: $1,000,000 combined single limit per occurrence for bodily injury, property damage and remediation costs.

DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and approved by the member. At the option of the member, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the member, its officials, employees, agents and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigation, claim administration and defense expenses.

OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain, the following provisions:

A. General Liability and Automobile Liability Coverages

1. The member, its officials, agents, employees and volunteers are to be covered as additional insureds as respects: liability arising out of the Contractor's work, including activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, leased or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the member, its officials, agents, employees and volunteers.

2. The Contractor's insurance coverage shall be primary as respects the member, its officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the member, its officials, agents, employees and volunteers shall be excess of Contractor's insurance and shall not contribute with it.

3. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the member, its officials, employees, agents and volunteers.

4. The Contractor's insurance shall contain a Severability of Interests/Cross Liability clause or language stating that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

5. If any commercial general liability insurance is being provided under an excess

or umbrella liability policy that does not "follow form," then the Contractor shall be required to name the member, its officials, employees, agents and volunteers as additional insureds.

6. All general liability coverages shall be provided on an occurrence policy form. Claims-made general liability policies will not be accepted.

7. The contractor and all subcontractors hereby agree to waive any limitation as to the amount of contribution recoverable against them by member. This specifically includes any limitation imposed by any state statute, regulation, or case law including any Workers' Compensation Act provision that applies a limitation to the amount recoverable in contribution such as Kotecki v. Cyclops Welding.

B. Workers' Compensation and Employers' Liability Coverage

The insurer shall agree to waive all rights of subrogation against the member, its officials, employees, agents and volunteers for losses arising from work performed by Contractor for the municipality.

1. NCCI Alternate Employer Endorsement (WC 000301) in place to insure that workers' compensation coverage applies under contractor's coverage rather than member's if the member is borrowing, leasing or in day to day control of contractors employee.
Required if box is checked ☐.

C. Professional Liability (Required if box is checked ☐)

1. Professional liability insurance with limits not less than $1,000,00 each claim with respect to negligent acts, errors and omissions in connection with professional services to be provided under the contract, with a deductible not-to-exceed $50,000 without prior written approval.

2. If the policy is written on a claims-made form, the retroactive date must be equal to or preceding the effective date of the contract. In the event the policy is cancelled, non-renewed or switched to an occurrence form, the Contractor shall be required to purchase supplemental extending reporting period coverage for a period of not less than three (3) years.

3. Provide a certified copy of actual policy for review.

4. Recommended Required Coverage (architect, engineer, surveyor, consultant): Professional liability insurance that provides indemnification and defense for injury or damage arising out of acts, errors, or omissions in providing the following professional services, but not limited to the following:

   a. Preparing, approving or failure to prepare or approve maps, drawings, opinions, report, surveys, change orders, designs or specifications;

   b. Providing direction, instruction, supervision, inspection, engineering services or failing to provide them, if that is the primary cause of injury or damage.

D. All Coverages

Each insurance policy required shall have the member expressly endorsed onto the policy as a Cancellation Notice Recipient. Should any of the policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than A-, VII and licensed to do business in the State of Illinois.

VERIFICATION OF COVERAGE

Contractor shall furnish the member with certificates of insurance naming the member, its officials, employees, agents and volunteers as additional insureds (Exhibit D), and with original endorsements affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the member before any work commences. The following additional insured endorsements may be utilized: ISO Additional Insured Endorsements CG 2010 (Exhibit A) or CG 2026 (Exhibit B), and CG 2037 (Exhibit C) – Completed Operations, where required. The member reserves the right to request full certified copies of the insurance policies and endorsements.

SUBCONTRACTORS

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

ASSUMPTION OF LIABILITY

The contractor assumes liability for all injury to or death of any person or persons including employees of the contractor, any sub-contractor, any supplier or any other person and assumes liability for all damage to property sustained by any person or persons occasioned by or in any way arising out of any work performed pursuant to this agreement.

II. INDEMNITY/HOLD HARMLESS PROVISION

To the fullest extent permitted by law, the Contractor hereby agrees to defend, indemnify and hold harmless the member, its officials, employees and agents against all injuries, deaths, loss, damages, claims, patent claims, suits, liabilities, judgments, cost and expenses, which may in anywise accrue against the member, its officials, agents and employees, arising in whole or in part or in consequence of the performance of this work by the Contractor, its employees, or subcontractors, or which may in anywise result therefore, except that arising out of the sole legal cause of the member, its employees or agents, the Contractor shall, at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefore or incurred in connections therewith, and, if any judgment shall be rendered against the member, its officials, employees and agents, in any such action, the Contractor shall, at its own expense, satisfy and discharge the same.

Contractor expressly understands and agrees that any performance bond or insurance policies required by this contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the member, its

officials, employees and agents as herein provided.

The Contractor further agrees that to the extent that money is due the Contractor by virtue of this contract as shall be considered necessary in the judgment of the member, may be retained by the member to protect itself against said loss until such claims, suits, or judgments shall have been settled or discharged and/or evidence to that effect shall have been furnished to the satisfaction of the member.

III. SAFETY/LOSS PREVENTION

Safety/Loss Prevention Program Requirements

- Successful bidder will provide written confirmation that a safety/loss prevention program was in place at least 90 days prior to submitting the bid proposal.

- Evidence of completed employee safety training can be provided.

Regulatory Requirements

- Successful bidder must comply with all applicable laws, regulations, and rules promulgated by any Federal, State, County, Municipal and/or other governmental unit or regulatory body now in effect or which may be in effect during the performance of the work. Included within the scope of the laws, regulations, and rules referred to in this paragraph but in no way to operate as a limitation, are Occupational Safety & Health Act (OSHA), Illinois Department of Labor (IDOL), Department of Transportation, all forms of traffic regulations, public utility, Intrastate and Interstate Commerce Commission regulations, Workers' Compensation Laws, Prevailing Wage Laws, the Social Security Act of the Federal Government and any of its titles, the Illinois Department of Human Rights, Human Rights Commission, or EEOC statutory provisions and rules and regulations.

- Evidence of specific regulatory compliance will be provided by bidder, if required by owner.

EXHIBIT A

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 10 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

   □

EXHIBIT B

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 26 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

A. In the performance of your ongoing operations; or

B. In connection with your premises owned by or rented to you.

EXHIBIT
C

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

Exhibit D (Example)

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

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

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

PRODUCER	CONTACT NAME: Producer/Ins. Broker Contact Info.
Name of Insurance Broker	PHONE (A/C, No, Ext): FAX (A/C, No):
	E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A :	Name of Insurance Company	Completed
INSURER B :	Name of Insurance Company	Completed
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

INSURED: Name of Contractor

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

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR Owners & Cont.Prot. (OCP) if requested GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC	Y	Y	Policy Number Inserted	Policy Start Date	Policy Start Date	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 1,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS HIRED AUTOS SCHEDULED AUTOS NON-OWNED AUTOS			Policy Number Inserted	Policy Start Date	Policy Start Date	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $	Y	Y	Policy Number Inserted	Policy Start Date	Policy Start Date	EACH OCCURRENCE AGGREGATE	$ Per Request $ Per Request
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	Policy Number Inserted	Policy Start Date	Policy Start Date	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 500,000 $ 500,000 $ 500,000
	Professional Liability (other specialty coverages as requested)			Policy Number Inserted	Policy Start Date	Policy start Date	$1,000,000 per occurrence or as requested	

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

List project number, location and description.

No additional endorsements limit coverage to additional insured beyond terms of actual additional insured endorsement (CG 2010 or CG 2026). Coverage to additional insured is primary. Additional Insured: Member, its officials, employees, agents and volunteers.

* Member named as cancellation notice recipient.

CERTIFICATE HOLDER

Name of Member

CANCELLATION

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

AUTHORIZED REPRESENTATIVE

Signature of authorized insurance company representative

APPENDIX 4
SWPPP & IEPA FORMS

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	VARIOUS	Marked Rte.	
Section		Project No.	
County	DUPAGE	Contract No.	

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Michael Guerra, P.E.	
Print Name	Signature
Public Works Director	
Title	Date
Village of Villa Park	
Agency	

I. Site Description:

A. Provide a description of the project location (include latitude and longitude):

The proposed improvements are located throughout various streets in the Village of Villa Park (Latitude 41°53'19.8", Longitude 87°58'44.9").

B. Provide a description of the construction activity which is the subject of this plan:

The 2020 Street Improvement Project consists of various roadway improvement methods including hot-mix asphalt (HMA) resurfacing and HMA pavement reconstruction. Roadways consisting of pavement resurfacing will have pavement patching and spot curb and gutter replacement based on field conditions. The pavement reconstruction areas will be composed of 2" HMA surface course, 4" HMA binder course, and 6" aggregate base course supported on geotechnical fabric. Four alleys will be reconstructed with 8" of jointed plain concrete pavement on top of 6" of aggregate base course supported on a geotechnical fabric. In addition, there will be sidewalk replacement at intersections to meet the Public Right-of-Way Accessibility Guidelines (PROWAG), driveway reconstruction, drainage and utility improvements, pavement markings, signing, erosion & sediment control, landscaping, and all collateral work necessary to complete the project.

C. Provide the estimated duration of this project:

This project will be under construction for approximately 4 months.

D. The total area of the construction site is estimated to be 9.6 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 6.86 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

C=0.65

F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:

See the attached NRCS Soil Maps.

G. Provide an aerial extent of wetland acreage at the site:

Not Applicable

H. Provide a description of potentially erosive areas associated with this project:

This project is located throughout residential areas of the Village. There are little to no concerns with erosive areas because there is typically no more than 10' of impact to the parkways where curb and gutter is being replaced.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The proposed profiles are designed to match the existing profiles of the various roadways which are relatively flat. The roadway slopes range from 0.3% to 3%. The parkway cross-slopes range from 1% to 8%.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

Storm sewer system is operated and owned by the Village of Villa Park.

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located.

Village of Villa Park

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

All runoff is drained by closed storm sewer systems which eventually outlet into Sugar Creek.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

All existing trees and other mature vegetation will be protected by the use of temporary fence. The Contractor is to follow the applicable erosion and sediment control requirements of the Illinois Urban Manual.

O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- ☐ Floodplain
- ☐ Wetland Riparian
- ☐ Threatened and Endangered Species
- ☐ Historic Preservation
- ☐ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- ☐ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
- ☐ Applicable Federal, Tribal, State or Local Programs
- ☐ Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

   a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

   b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

2. TMDL (fill out this section if checked above)

a. The name(s) of the listed water body:

b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

P. The following pollutants of concern will be associated with this construction project:

☒	Soil Sediment	☒	Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
☒	Concrete	☒	Antifreeze / Coolants
☒	Concrete Truck Waste	☒	Waste water from cleaning construction equipment
☒	Concrete Curing Compounds	☐	Other (specify)
☐	Solid Waste Debris	☐	Other (specify)
☐	Paints	☐	Other (specify)
☐	Solvents	☐	Other (specify)
☒	Fertilizers / Pesticides	☐	Other (specify)

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(B)(1) and II(B)(2), stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- ☒ Preservation of Mature Vegetation
- ☐ Vegetated Buffer Strips
- ☒ Protection of Trees
- ☒ Temporary Erosion Control Seeding
- ☐ Temporary Turf (Seeding, Class 7)
- ☐ Temporary Mulching
- ☐ Permanent Seeding
- ☐ Erosion Control Blanket / Mulching
- ☒ Sodding
- ☐ Geotextiles
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the stabilization practices listed above will be utilized during construction:

Protection of Trees and Mature Vegetation – Prior to the start of any construction activities, tree pruning and tree root pruning will take place within the construction area. In addition, temporary fence will be placed around all existing trees and mature vegetation within and near the work zone to prevent any damage as directed by the Engineer.

Temporary Erosion Control Seeding – This item will be applied to all bare soil areas every seven days to minimize the amount of exposed surface areas.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

Sodding – This item will be placed according to the landscaping plans at the end of each major stage of construction to permanently stabilize the disturbed areas.

C. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following structural practices will be used for this project:

- ☐ Perimeter Erosion Barrier
- ☐ Temporary Ditch Check
- ☒ Storm Drain Inlet Protection
- ☐ Sediment Trap
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☐ Stabilized Construction Exits
- ☐ Turf Reinforcement Mats
- ☐ Permanent Check Dams
- ☐ Permanent Sediment Basin
- ☐ Aggregate Ditch
- ☐ Paved Ditch
- ☐ Rock Outlet Protection
- ☐ Riprap
- ☐ Gabions
- ☐ Slope Mattress
- ☐ Retaining Walls
- ☐ Slope Walls
- ☐ Concrete Revetment Mats
- ☐ Level Spreaders
- ☐ Other: (specify)
- ☐ Other: (specify)
- ☐ Other: (specify)
- ☐ Other: (specify)
- ☐ Other (specify)

Describe how the structural practices listed above will be utilized during construction:

Storm Drain Inlet Protection – Inlet filters will be used in all open grate structures within the project area to prevent silt and sediment form entering the drainage system.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

D. **Treatment Chemicals**

Will polymer flocculants or treatment chemicals be utilized on this project: ☐ Yes ☒ No

If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. **Permanent Storm Water Management Controls:** Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

   The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

2. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

   Description of permanent storm water management controls:

   Not applicable because detention not required.

F. **Approved State or Local Laws:** The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

All practices and procedures shall be in accordance with the IDOT Standard Specifications for Road and Bridge Construction, IDOT Supplemental Specifications and Recurring Special Provisions, SWCD Illinois Urban Manual, and the special provisions and details shown in the Plans.

G. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization timeframe
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operations
- Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- Permanent stabilization activities for each area of the project

2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

   - Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
   - Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
   - Stockpile Management – Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
   - Waste Disposal – Discuss methods of waste disposal that will be used for this project.
   - Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
   - Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
   - Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
   - Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
   - Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
   - Dewatering Activities – Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
   - Polymer Flocculants and Treatment Chemicals – Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
   - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

Additional Inspections Required:

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.

Illinois Department of Transportation

Contractor Certification Statement

Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	VARIOUS	Marked Rte.	
Section		Project No.	
County	DUPAGE	Contract No.	

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

☐ Contractor

☐ Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP:

Custom Soil Resource Report
Map—Hydrologic Soil Group (Addison & Stone Alleys)

Map Scale: 1:1,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2016—Oct 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Addison & Stone Alleys)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
805B	Orthents, clayey, undulating	D	1.6	100.0%
Totals for Area of Interest			**1.6**	**100.0%**

Rating Options—Hydrologic Soil Group (Addison & Stone Alleys)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Custom Soil Resource Report
Map—Hydrologic Soil Group (PLYMOUTH STREET)

Map Scale: 1:4,960 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2016—Oct 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (PLYMOUTH STREET)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
232A	Ashkum silty clay loam, 0 to 2 percent slopes	C/D	0.7	3.2%
830	Landfills		0.0	0.2%
854B	Markham-Ashkum-Beecher complex, 1 to 6 percent slopes	C/D	22.1	96.6%
Totals for Area of Interest			**22.8**	**100.0%**

Rating Options—Hydrologic Soil Group (PLYMOUTH STREET)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Custom Soil Resource Report
Map—Hydrologic Soil Group (Vermont Street)

Map Scale: 1:5,060 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2016—Oct 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Vermont Street)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
805B	Orthents, clayey, undulating	D	2.2	11.2%
854B	Markham-Ashkum-Beecher complex, 1 to 6 percent slopes	C/D	17.7	88.8%
Totals for Area of Interest			**20.0**	**100.0%**

Rating Options—Hydrologic Soil Group (Vermont Street)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Custom Soil Resource Report
Map—Hydrologic Soil Group (ST. CHARLES ALLEY)

Map Scale: 1:842 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2016—Oct 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (ST. CHARLES ALLEY)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
805B	Orthents, clayey, undulating	D	0.7	64.4%
854B	Markham-Ashkum-Beecher complex, 1 to 6 percent slopes	C/D	0.4	35.6%
Totals for Area of Interest			**1.1**	**100.0%**

Rating Options—Hydrologic Soil Group (ST. CHARLES ALLEY)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Custom Soil Resource Report
Map—Hydrologic Soil Group (PARK BLVD & PARK ALLEY)

Map Scale: 1:999 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 10, 2016—Oct 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (PARK BLVD & PARK ALLEY)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
805B	Orthents, clayey, undulating	D	3.2	93.3%
854B	Markham-Ashkum-Beecher complex, 1 to 6 percent slopes	C/D	0.2	6.7%
Totals for Area of Interest			**3.5**	**100.0%**

Rating Options—Hydrologic Soil Group (PARK BLVD & PARK ALLEY)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
Notice of Intent (NOI) for General Permit
to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

For Office Use Only

Permit No. ILR10 _____

OWNER INFORMATION

Company/Owner Name: Village of Villa Park, DuPage County, Illinois

Mailing Address: 11 West Home Avenue Phone: (630) 834-8505

City: Villa Park State: IL Zip: 60181 Fax: (630) 834-8509

Contact Person: Michael Guerra, P.E. E-mail: mguerra@invillapark.com

Owner Type (select one) City

MS4 Community: ☑ Yes ☐ No

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: ___ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Select One: ☒ New ☐ Change of information for: ILR10 _____

Project Name: 2020 Street Improvement Project County: DuPage

Street Address: Various Streets City: Villa Park IL Zip: 60181

Latitude: 41 (Deg) 53 (Min) 20 (Sec) Longitude: -87 (Deg) 58 (Min) 45 (Sec) Various Section 39N Township **11E** Range

Approximate Construction Start Date _____ Approximate Construction End Date _____

Total size of construction site in acres: 6.86

If less than 1 acre, is the site part of a larger common plan of development?

☐ Yes ☐ No

Fee Schedule for Construction Sites:
Less than 5 acres - $250
5 or more acres - $750

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Has the SWPPP been submitted to the Agency? ☐ Yes ☑ No

(Submit SWPPP electronically to: epa.constilr10swppp@illinois.gov)

Location of SWPPP for viewing: Address: _____ City: _____

SWPPP contact information: Inspector qualifications:

Contact Name: _____ _____

Phone: _____ Fax: _____ E-mail: _____

Project inspector, if different from above Inspector qualifications:

Inspector's Name: _____ _____

Phone: _____ Fax: _____ E-mail: _____

IL 532 2104 WPC 623
Rev 5/10

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

TYPE OF CONSTRUCTION (select one)

Construction Type Transportation

SIC Code: _____

Type a detailed description of the project:

The 2020 Street Improvement Project consists of various roadway improvement methods including hot-mix asphalt (HMA) resurfacing and HMA pavement reconstruction. Roadways consisting of pavement resurfacing will have pavement patching and spot curb and gutter replacement based on field conditions. The pavement reconstruction areas will be composed of 2" HMA surface course, 4" HMA binder course, and 6" aggregate base course supported on geotechnical fabric. Four alleys will be reconstructed with 8" of jointed plain concrete pavement on top of 6" of aggregate base course supported on a geotechnical fabric.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

Historic Preservation Agency	☐ Yes	☑ No
Endangered Species	☐ Yes	☑ No

RECEIVING WATER INFORMATION

Does your storm water discharge directly to: ☐ Waters of the State or ☑ Storm Sewer

Owner of storm sewer system: Village of Villa Park

Name of closest receiving water body to which you discharge: Sugar Creek

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

_____ _____
Owner Signature: Date:

Vydas Juskelis, P.E. Director of Public Works
Printed Name: Title:

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the upper right hand corner of the first page.

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is $250.

Construction sites with 5 or more acres of land disturbance - fee is $750.

SWPPP should be submitted electronically to: epa.constilr10swppp@illinois.gov When submitting electronically, use Project Name and City as indicated on NOI form.

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
Construction Site Storm Water Discharge Incidence of Non-Compliance (ION)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. You may email this completed form to:
epa.swnoncomp@illinois.gov

For Office Use Only
Permit No. ILR10_____

Permittee Name: Village of Villa Park, DuPage County, Illinois
Address: 11 West Home Avenue
County: DuPage
City: Villa Park State: IL Zip: 60181
Phone: (630) 834-8505
Construction Site Name: 2020 Street Improvement Project
E-mail: mguerra@invillapark.com

Latitude: 41 (Deg) 53 (Min) 20 (Sec) Longitude: -87 (Deg) 58 (Min) 45 (Sec) Various Section 39N Township 11E Range

Cause of Non-Compliance

Actions Taken to Prevent Any Further Non-Compliance

Environmental Impact Resulting From the Non-Compliance

Actions Taken to Reduce the Environmental Impact Resulting From the Non-Compliance

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature: _____ Date: _____

Vydas Juskelis, P.E. — Printed Name:

Director of Public Works — Title:

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

DIVISION OF WATER POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
FIELD OPERATIONS SECTION

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the SWPPP. Please adhere to the following guidelines:

Initial submission within 24 hours by email, telephone or fax (see region fax numbers) of any incidence of non-compliance for any violation. Submit email copy to: epa.swnoncomp@illinois.gov. After 24 hours notification, submit signed original ION within 5 days to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance #19
Post Office Box 19276
Springfield, Illinois 62794-9276

FIELD OPERATIONS HEADQUARTERS
Bruce Yurdin, Manager
Phone: 217/782-3362 Fax: 217/785-1225
EMAIL: epa.swnoncomp@illinois.gov

Region 1 - ROCKFORD
Chuck Corley, Manager
Phone: 815/987-7760 Fax: 815/987-7005

Region 2 - DESPLAINES
Jay Patel, Manager
Phone: 847/294-4000 Fax: 847/294-4058

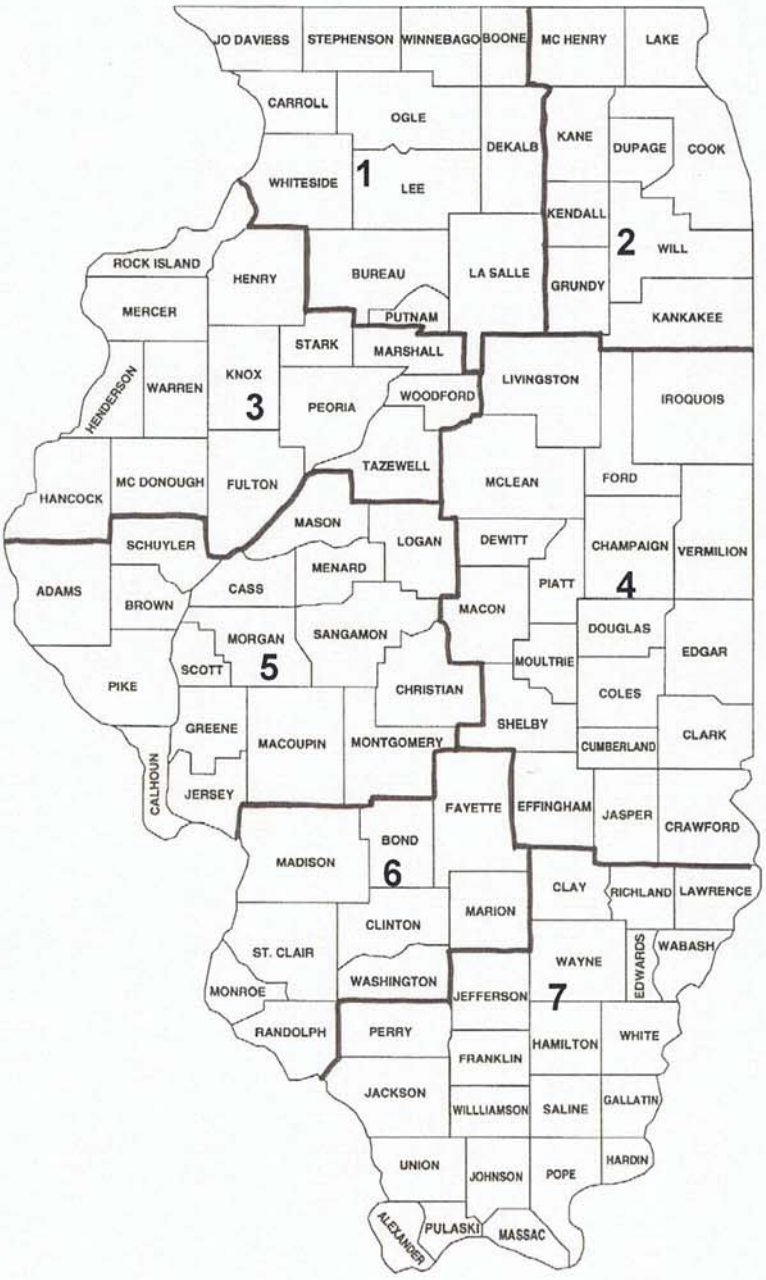
Region 3 - PEORIA
Jim Kammueller, Manager
Phone: 309/693-5463 Fax: 309/693-5467

Region 4 - CHAMPAIGN
Joe Koronkowski, Manager
Phone: 217/278-5800 Fax: 217/278-5808

Region 5 - SPRINGFIELD
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 6 - COLLINSVILLE
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 7- MARION
Byron Marks, Manager
Phone: 618/993-7200 Fax: 618/997-5467



Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
NOTICE OF TERMINATION (NOT)
of Coverage under the General Permit for Storm Water Discharges Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

Permit No. ILR10 _____

OWNER INFORMATION

Owner Name: Village of Villa Park, DuPage County, Illinois

Owner Type (select one) City

Mailing Address: 11 West Home Avenue Phone: (630) 834-8505

City: Villa Park State: IL Zip: 60181 Fax: (630) 834-8509

Contact Person: Michael Guerra, P.E. E-mail: mguerra@invillapark.com

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: ___ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Facility Name: 2020 Street Improvement Project

Street Address: Various Streets

City: Villa Park IL Zip: 60181 County: DuPage

NPDES Storm Water General Permit Number: ILR10 _____

Latitude:	41	53	20	Longitude:	-87	58	45	Various	39N	11E
	(Deg)	(Min)	(Sec)		(Deg)	(Min)	(Sec)	Section	Township	Range

DATE PROJECT HAS BEEN COMPLETED AND STABILIZED: _____

NOTE: Coverage under this permit cannot be terminated without the completion date.

I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES Permit.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

_____ _____

Owner Signature: Date:

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

(Do not submit additional documentation unless requested)

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible.

Submit completed forms to:

Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

Final stabilization has occurred when:

(a) all soil disturbing activities at the site have been completed;

(b) a uniform perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas not covered by permanent structures; or

(c) equivalent permanent stabilization measures have been employed.

APPENDIX 5
PAVEMENT CORES AND SOIL BORINGS
LPC 663 CCDD CERTIFICATION

PAVEMENT CORE MEASUREMENT LOG
2019 STREETS PROGRAM
VILLA PARK, ILLINOIS

Core No. C-1

Location E. Plymouth Street, WB ~ 815' W of Villa Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**	**coeff**	**sn**
PC Concrete	0	to	6- 1/2	6- 1/2		0.50	3.25
Granular Base Course	6- 1/2	to	15	8- 1/2	Crushed LIMESTONE with Clay	0.10	0.85
Subgrade	15				Grey CLAY, A-7-6		**4.10**
					Mc=31%, PR=2.8 in/blow, Qu=0.6 tsf		

Core No. C-2

Location E. Plyouth Street, EB ~ 150' W of Villa Avenue

Material	**Depth (in)**			**Thickness (in.)**	**Remarks/ Condition**	**coeff**	**sn**
PC Concrete	0	to	8- 1/4	8- 1/4		0.50	4.13
Trench Backfill	8- 1/4	to	47	38- 3/4	Crushed LIMESTONE, CA-06	0.00	0.00
Refusal at 47"							**4.13**

Core No. C-3

Location E. Park Boulevard, WB ~ 370' W of S. Ardmore Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**	**coeff**	**sn**
Bituminous Surface	0	to	2	2		0.30	0.60
Crack Control Fabric						0.00	0.00
Bituminous Surface	2	to	2- 3/4	3/4		0.23	0.17
Bituminous Surface	2- 3/4	to	3- 3/4	1		0.23	0.23
Bituminous Binder	3- 3/4	to	4- 1/2	3/4		0.20	0.15
PC Concrete	4- 1/2	to	12- 1/4	7- 3/4	Fair to Poor - Some Cracking	0.50	3.88
Subgrade	12- 1/4				Brownish-Grey CLAY, A-6		**5.03**
					Mc=25%, PR=2.1 in/blow, Qu=0.9 tsf		

Core No. C-4

Location E. Park Boulevard, EB ~ 130' E of S. Ardmore Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**	**coeff**	**sn**
Bituminous Surface	0	to	1- 3/4	1- 3/4		0.30	0.53
Crack Control Fabric						0.00	0.00
Bituminous Surface	1- 3/4	to	2- 1/2	3/4		0.23	0.17
Bituminous Binder	2- 1/2	to	4- 1/4	1- 3/4	Deterioration, Cracking	0.20	0.35
PC Concrete	4- 1/4	to	14	9- 3/4	Poor - Broken Up / Cracking	0.50	4.88
Subgrade	14				Grey to Dark Grey CLAY, A-7-6		**5.92**
					Mc=25%, PR=2.1 in/blow, Qu=0.9 tsf		

PAVEMENT CORE MEASUREMENT LOG
2019 STREETS PROGRAM
VILLA PARK, ILLINOIS

Core No. B-1

Location E. Plymouth Street. EB ~ 210' E of N. Ardmore Avenue

Material	Depth (in.)			Thickness (in.)	Remarks/Condition	coeff	sn
PC Concrete	0	to	6- 1/2	6- 1/2		0.50	3.25
Granular Base Course	6- 1/2	to	9	2- 1/2	Crushed LIMESTONE with Clay	0.10	0.25
							3.50

Core No. B-2

Location E. Plymouth Street. WB ~ 520' E of N. Ardmore Avenue

Material	Depth (in)			Thickness (in.)	Remarks/ Condition	coeff	sn
PC Concrete	0	to	6- 1/2	6- 1/2		0.50	3.25
Granular Base Course	6- 1/2	to	26	19- 1/2	Crushed LIMESTONE with Clay	0.10	1.95
							5.20

Core No. B-3

Location E. Plymouth Street. EB ~ 1,215' E of N. Ardmore Avenue

Material	Depth (in.)			Thickness (in.)	Remarks/Condition	coeff	sn
PC Concrete	0	to	6- 1/4	6- 1/4		0.50	3.13
Granular Base Course	6- 1/4	to	10- 1/2	4- 1/4	Crushed LIMESTONE with Clay	0.10	0.43
							3.55

Core No. B-4

Location St. Charles Alley between N. Harvard Avenue and N. Yale Avenue

Material	Depth (in.)			Thickness (in.)	Remarks/Condition	coeff	sn
Bituminous Binder	0	to	2- 1/2	2- 1/2		0.25	0.63
Bituminous Binder	2- 1/2	to	5- 1/2	3		0.20	0.60
Granular Base Course	5- 1/2	to	14	8- 1/2	Crushed LIMESTONE, CA-06	0.11	0.94
							2.16

Core No. B-5

Location Park Boulevard Alley between S. Princeton Avenue and S. Ardmore Avenue

Material	Depth (in.)			Thickness (in.)	Remarks/Condition	coeff	sn
Bituminous Surface	0	to	1	1		0.30	0.30
PC Concrete	1	to	8- 3/4	7- 3/4		0.50	3.88
							4.18

MSET PROJECT NO.: 18639	LOG OF BORING NO. B-1	Page 1 of 1

PROJECT: **2019 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Plymouth, EB - 210' E of Ardmore** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - 6-1/2" PC Concrete	0.0							
		GBC - 2-1/2" Crushed Limestone	-0.5							
		Olive-Grey CLAY, A-7-6, very stiff	-0.8	SS	1A	4	26	91	2.02	
		Brown and Grey CLAY, A-6, very stiff to hard	-1.5	SS	1B	4	19	105	2.83	
2.5										
		moist		SS	2	7	19	109	2.33	
5										
				SS	3	14	20	105	4.81	
7.5										
				SS	4	18	17	106	6.17	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/26/18
BORING COMPLETED: 12/26/18
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 18639	LOG OF BORING NO. B-2	Page 1 of 1

PROJECT: **2019 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Plymouth, WB - 520' E of Ardmore** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - 6-1/2" PC Concrete	0.0							
		GBC - 19-1/2" Crushed Limestone	-0.5							
				SS	1A	5	31	88	2.21	
2.5		Black to Dark Grey CLAY, A-7-6	-2.2							
		Brown and Grey, little Black CLAY, A-6, stiff to very stiff	-2.5	SS	1B	6	22	92	1.55	
				SS	2	4	27	91	2.25	
5										
				SS	3	6	29	94	1.71	
7.5										
		Brown CLAY, A-6, hard	-8.0							
				SS	4	13	20	105	6.32	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/26/18
BORING COMPLETED: 12/26/18
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 18639	LOG OF BORING NO. B-3	Page 1 of 1

PROJECT: **2019 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Plymouth, EB - 1215' E of Ardmore** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - 6-1/4" PC Concrete	0.0							
		GBC - 4-1/4" Crushed Limestone	-0.5							
		Brown and Grey CLAY, A-6(14), very stiff to hard	-0.9	SS	1	5	19	102	2.79	
2.5										
				SS	2	11	20	105	6.75	
5										
				SS	3	14	20	104	5.51	
7.5										
		Grey, trace Brown CLAY, A-6, hard	-8.0							
				SS	4	11	19	105	5.59	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/26/18
BORING COMPLETED: 12/26/18
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 18639	LOG OF BORING NO. B-4	Page 1 of 1

PROJECT: **2019 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **St. Charles Alley** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - 5-1/2" Bit. Concrete	0.0							
		GBC - 8-1/2" Crushed Limestone	-0.4							
		Black to Olive-Grey CLAY, A-7-6, very stiff	-1.2	SS	1	9	28	88	2.41	
2.5										
		Brown, Grey and Black CLAY, A-6(15), stiff	-3.0							
				SS	2	5	28	94	1.78	
5										
		Brown and Grey CLAY, A-6, moist, hard	-5.5							
				SS	3	7	20	101	4.85	
7.5										
				SS	4	14	18	104	7.26	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/26/18
BORING COMPLETED: 12/26/18
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 18639	**LOG OF BORING NO. B-5**	Page 1 of 1

PROJECT: **2019 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Park Boulevard Alley** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - 1" Bit. Concrete over 7-3/4" PC Concrete	0.0							
		Black to Olive-Grey CLAY, A-7-6, very stiff	-0.8	SS	1	10	25	94	3.03	
2.5										
		Brown and Grey, little Black CLAY, A-6, moist, stiff to very soft	-3.0	SS	2	3	26	94	1.63	
5										
				SS	3A	0	31	78	0.16	
		Brown and Grey CLAY, A-6, very stiff to hard	-6.5	SS	3B	7	18	106	3.53	
7.5										
				SS	4	19	19		4.5+ (Qp)	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/26/18
BORING COMPLETED: 12/26/18
LOGGED BY: GPF
BORING METHOD: HSA

PAVEMENT CORE MEASUREMENT LOG
2020 STREET IMPROVEMENT PROGRAM
VILLA PARK, ILLINOIS

Core No. B-4

Location East Vermont Street. EB ~ 140' E of N. Ardmore Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**
PC Concrete	0	to	7- 1/4	7- 1/4	
Subgrade	7- 1/4				FILL - Brown and Grey CLAY, A-7-6 Mc=17%, Qp=4.5+ tsf

Core No. C-1

Location East Vermont Street. WB ~ 160' E of S. Beverly Avenue

Material	**Depth (in)**			**Thickness (in.)**	**Remarks/ Condition**
PC Concrete	0	to	7- 1/4	7- 1/4	
Subgrade	7- 1/4				FILL - Brown and Dk Grey Clay LOAM, A-7-6 Mc=17%, IBV=5.5, Qu=1.8 tsf

Core No. C-2

Location East Vermont Street. EB ~ 140' E of Ellsworth Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**
PC Concrete	0	to	7- 1/4	7- 1/4	
Subgrade	7- 1/4				Black to Dk Grey CLAY, A-7-6 Mc=25%, IBV=7.2, Qu=2.3 tsf

Core No. C-3

Location East Vermont Street. WB ~ 175' E of N. Gerard Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**
PC Concrete	0	to	7- 1/4	7- 1/4	
Subgrade	7- 1/4				Brown and Grey CLAY, A-7-6 Mc=28%, IBV=2.5, Qu=0.8 tsf

Core No. B-5

Location East Vermont Street. EB ~ 100' E of Hamilton Avenue

Material	**Depth (in.)**			**Thickness (in.)**	**Remarks/Condition**
PC Concrete	0	to	7	7	
Subgrade	7				Brown and Grey CLAY, A-7-6 Mc=20%, Qu=3.03 tsf

MSET PROJECT NO.: 19703	LOG OF BORING NO. B-1	Page 1 of 1

PROJECT: 2020 Streets Program

SITE LOCATION: Villa Park, Illinois

BORING LOCATION: Alley: 1078233E, 1907748N

CLIENT: Civiltech Engineering, Inc.

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		GBC - Grey Crushed LIMESTONE (10")	0.0							
		Black CLAY, A-7-6, stiff	-0.8	SS	1	8	28		1.0 (Qp)	
2.5		Brown and Grey CLAY, A-7-6, very stiff to hard	-3.0	SS	2	6	23	96	2.37	
5				SS	3	5	24	95	1.78	
7.5				SS	4	18	19	106	6.13	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/13/19
BORING COMPLETED: 12/13/19
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 19703	**LOG OF BORING NO. B-2**	Page 1 of 1

PROJECT: **2020 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Alley: 1078610E, 1907625N** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		GBC - Crushed LIMESTONE (19")	0.0							
		Black CLAY, A-7-6(32), stiff TOM = 5.72%	-1.6	SS	1	8	32	74	1.67	
2.5		Brown, Grey and Black CLAY, A-7-6, stiff	-3.0							
				SS	2	4	28		1.5 (Qp)	
5										
				SS	3	3	25	95	1.78	
7.5		Brown CLAY, A-7-6, very stiff	-8.0							
				SS	4	15	17	108	3.80	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: 7.0'
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/13/19
BORING COMPLETED: 12/13/19
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 19703	LOG OF BORING NO. B-3	Page 1 of 1

PROJECT: 2020 Streets Program

SITE LOCATION: Villa Park, Illinois

BORING LOCATION: Alley: 1078324E, 1907563N

CLIENT: Civiltech Engineering, Inc.

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		GBC - Crushed LIMESTONE (9")	0.0							
		Black CLAY, A-7-6, hard	-0.8	SS	1A	8	23		4.5+ (Qp)	
		Brown and Grey CLAY, A-7-6, hard	-1.5	SS	1B	12	24	91	4.58	
2.5										
				SS	2	9	18	108	5.16	
5										
				SS	3	8	18	103	3.18	
7.5										
				SS	4	15	20	105	4.27	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/13/19
BORING COMPLETED: 12/13/19
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 19703	**LOG OF BORING NO. B-4**	Page 1 of 1

PROJECT: **2020 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Vermont: 1080869E, 1905563N** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - PC Concrete (7-1/4")	0.0							
		FILL - Brown and Grey CLAY, A-7-6, hard	-0.6	SS	1A	7	17		4.5+ (Qp)	
2.5		FILL - Black, some Brown CLAY, A-7-6, very stiff	-2.0	SS	1B	8	18		2.0 (Qp)	
5		Black to Dark Grey Organic CLAY, A-8, very soft	-4.0	SS	2	3	80		0.5 (Qp)	
				SS	3A	WOH	108		<0.25 (Qp)	
7.5		Dark Brown Fibrous PEAT, A-8, soft	-7.0	SS	3B	WOH	126	36	0.44	
		Grey Organic SILT, A-8, moist, very soft	-8.0	SS	4	WOH	93		<0.25 (Qp)	
10										
12.5				SS	5	WOH	65		<0.25 (Qp)	
				SS	6	WOH	36		<0.25 (Qp)	
15		Grey CLAY, A-7-6, stiff	-15.0							
				SS	7	6	22	95	1.51	
17.5		End of Boring at 17.5'	-17.5							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/13/19
BORING COMPLETED: 12/13/19
LOGGED BY: GPF
BORING METHOD: HSA

MSET PROJECT NO.: 19703	LOG OF BORING NO. B-5	Page 1 of 1

PROJECT: **2020 Streets Program** SITE LOCATION: **Villa Park, Illinois**

BORING LOCATION: **Vermont: 1083240E, 1905647N** CLIENT: **Civiltech Engineering, Inc.**

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE TYPE/ INTERVAL	SAMPLE NO.	SAMPLE N-VALUE Blows per ft.	TESTS Wc%	TESTS Dry Unit Weight, pcf	TESTS Unconfined Compressive Strength, tsf	REMARKS
0		PAVEMENT - PC Concrete (7")	0.0							
		Brown and Grey CLAY, A-7-6(22), very stiff to hard	-0.6	SS	1	7	20	99	3.03	
2.5										
				SS	2	12	20	104	5.24	
5										
				SS	3	13	20	102	5.08	
7.5										
				SS	4	14	21	103	5.59	
10		End of Boring at 10'	-10.0							

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER

MSET

BORING STARTED: 12/13/19
BORING COMPLETED: 12/13/19
LOGGED BY: GPF
BORING METHOD: HSA

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663 Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: 2019 Villa Park Street Improvements Office Phone Number, if available: _____

Physical Site Location (address, incldluding number and street):

Park Boulevard; Park Boulevard Alley, St. Charles Road Alley, and Plymouth Street - See attached figures

City: Villa Park State: IL Zip Code: 60181

County: DuPage Township: York

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.890264 (Decimal Degrees) Longitude: -87.982867 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Village of Villa Park	Name:	
Street Address:	20 South Ardmore Avenue	Street Address:	
PO Box:		PO Box:	
City:	Villa Park State: IL	City:	State:
Zip Code:	60181 Phone:	Zip Code:	Phone:
Contact:		Contact:	
Email, if available:		Email, if available:	

Project Name: 2019 Villa Park Street Improvements

Latitude: 41.890264 Longitude: -87.982867

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

A limited historical & regulatory review was performed to identify PIPs. Site reconnaissance was performed while sampling to evaluate on-site environmental conditions & potential PIPs. Based on the nature & scope of the project, 6 soil samples were collected for indicator contaminants associated with identified PIPs, and screened with a PID. Figure 2 shows sample locations.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached analytical summary tables, laboratory reports and associated NELAC certification. Figure 2 identifies the project area that is covered by this certification.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Ryan M. LaDieu, P.E. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: True North Consultants

Street Address: 1000 E Warrenville Road, Suite 140

City: Naperville State: IL Zip Code: 60563

Phone: 630.717.2880

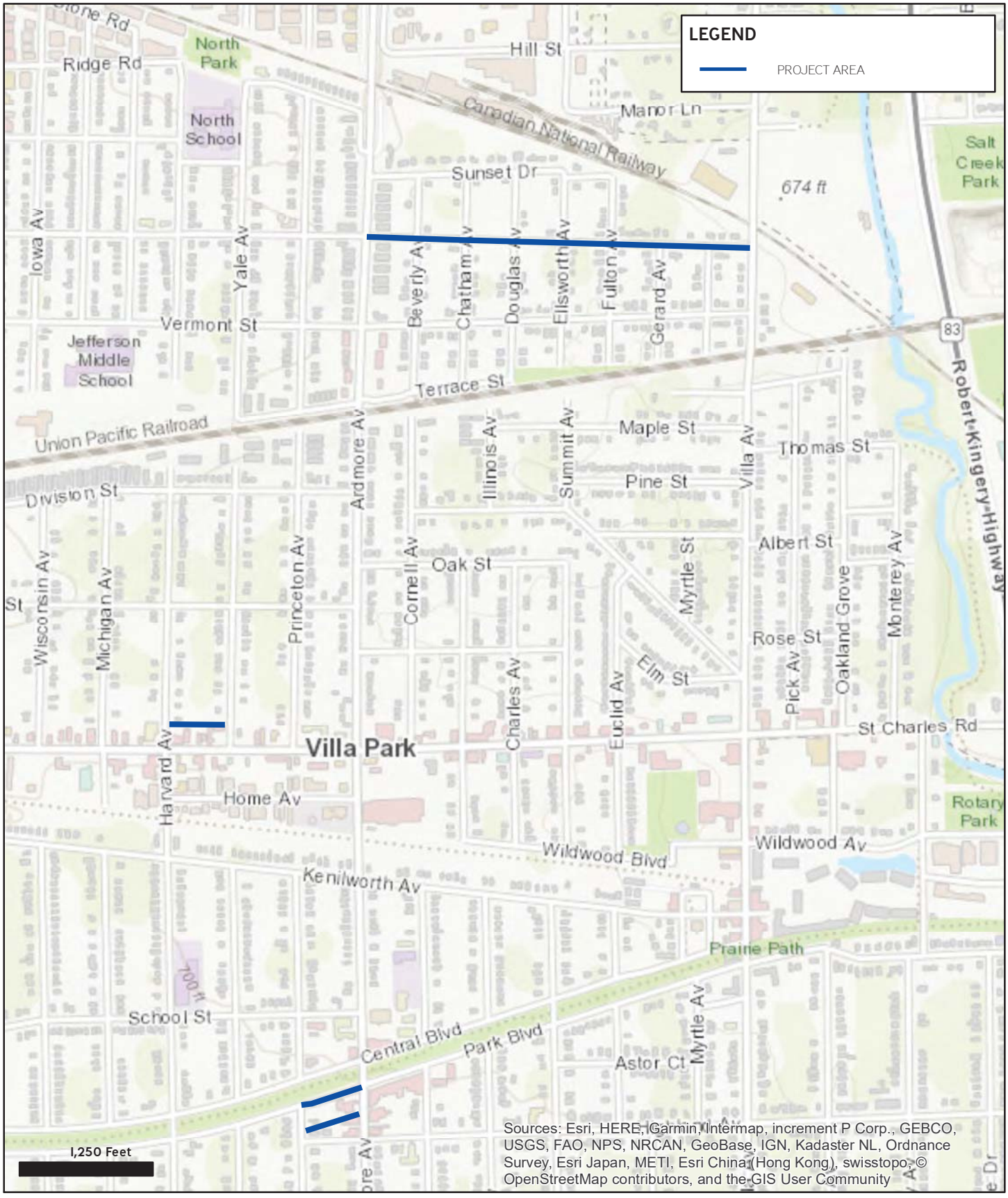
Ryan M. LaDieu
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

010819
Date:

LICENSED PROFESSIONAL ENGINEER
RYAN M. LaDIEU
062-053687
STATE OF ILLINOIS

P.E. or L.P.G. Seal:



TRUE NORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF PARK BOULEVARD, PARK BOULEVARD ALLEY, PLYMOUTH STREET & ST. CHARLES ALLEY VILLA PARK, ILLINOIS
CLIENT	CIVILTECH ENGINEERING, INC. 2 PIERCE PLACE, SUITE 1400 ITASCA, ILLINOIS

PROJECT	TII8839
DATE	1/8/2019
SCALE	1 inch=1,250 feet

FIGURE 1

TRUENORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF PARK BOULEVARD, PARK BOULEVARD ALLEY, PLYMOUTH STREET & ST. CHARLES ALLEY VILLA PARK, ILLINOIS
CLIENT	CIVILTECH ENGINEERING, INC. 2 PIERCE PLACE, SUITE 1400 ITASCA, ILLINOIS

PROJECT	TII8839
DATE	1/8/2019
SCALE	1 inch=600 feet

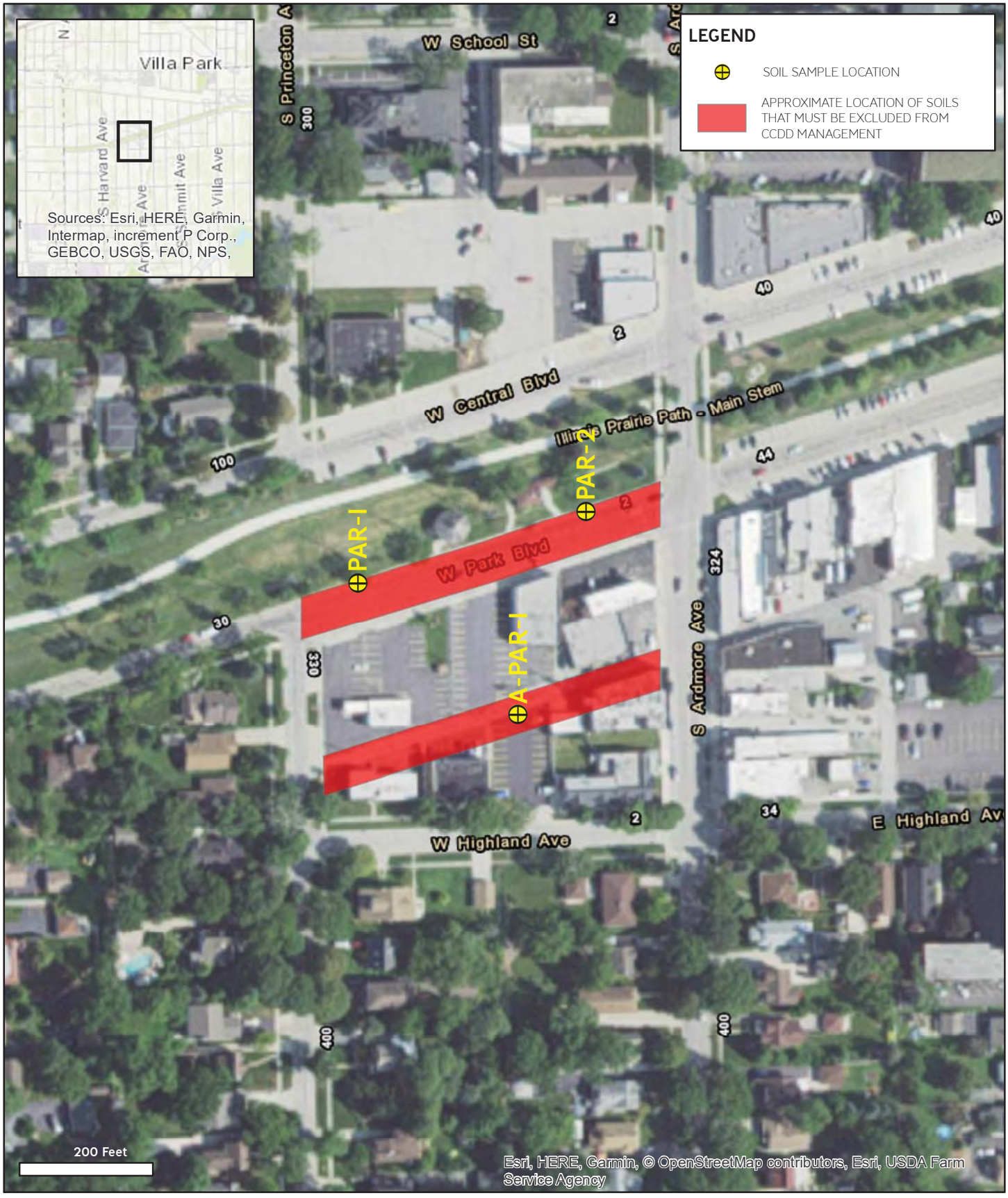
FIGURE 2A

TRUE NORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF PARK BOULEVARD, PARK BOULEVARD ALLEY, PLYMOUTH STREET & ST. CHARLES ALLEY VILLA PARK, ILLINOIS
CLIENT	CIVILTECH ENGINEERING, INC. 2 PIERCE PLACE, SUITE 1400 ITASCA, ILLINOIS

PROJECT	T118839
DATE	1/8/2019
SCALE	1 inch=200 feet

FIGURE 2B



TRUE NORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF PARK BOULEVARD, PARK BOULEVARD ALLEY, PLYMOUTH STREET & ST. CHARLES ALLEY VILLA PARK, ILLINOIS
CLIENT	CIVILTECH ENGINEERING, INC. 2 PIERCE PLACE, SUITE 1400 ITASCA, ILLINOIS

PROJECT	TII8839
DATE	1/8/2019
SCALE	1 inch=200 feet

FIGURE 2C

TABLE I

Summary of Soil Analytical Results - Soil Characterization Sampling

Volatile Organic Compounds (VOCs)

CLIENT: Civiltech Engineering, Inc.
SITE: East Park Boulevard, East Park Boulevard alley; East Plymouth Street and East St. Charles Road alley, Villa Park, Illinois
PROJECT NUMBER: TII8839

SAMPLE DATE: December 26, 2018
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 5035A/8260B

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	PLY-1	PLY-3	A-STC-1	PAR-1	PAR-2	A-PAR-1		
			Sample Date	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018		
			Depth	2-4'	2-4'	6-8'	0-2'	0-2'	2-4'		
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay		
Acetone	25	MAC		NA	NA	< 0.0496	NA	NA	< 0.170		
Benzene	0.03	MAC		< 0.00527	< 0.00584	< 0.00496	< 0.00503	< 0.00553	< 0.00530		
Bromodichloromethane	0.6	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Bromoform	0.8	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Bromomethane	0.2	MAC		NA	NA	< 0.00992	NA	NA	< 0.0106		
2-Butanone	17	MAC		NA	NA	< 0.00992	NA	NA	0.0198		
Carbon disulfide	9	MAC		NA	NA	< 0.00992	NA	NA	< 0.0106		
Carbon tetrachloride	0.07	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Chlorobenzene	1	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Chloroform	0.3	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,2-Dibromo-3-chloropropane	0.002	MAC		NA	NA	< 0.00149	NA	NA	< 0.00106		
Dibromochloromethane	0.4	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,2-Dibromoethane	0.005	MAC		NA	NA	< 0.00298	NA	NA	< 0.00212		
1,2-Dichlorobenzene	17	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,4-Dichlorobenzene	2	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,1-Dichloroethane	23	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,2-Dichloroethane	0.02	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,1-Dichloroethylene	0.06	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
cis-1,2-Dichloroethylene	0.4	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
trans-1,2-Dichloroethylene	0.7	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,2-Dichloropropane	0.03	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
cis-1,3-Dichloropropene	0.005	MAC		NA	NA	< 0.00298	NA	NA	< 0.00318		
trans-1,3-Dichloropropene	0.005	MAC		NA	NA	< 0.00298	NA	NA	< 0.00318		
1,3-Dichloropropene (total)	0.005	MAC		NA	NA	< 0.00397	NA	NA	< 0.00318		
Ethylbenzene	13	MAC		< 0.00527	< 0.00584	< 0.00496	< 0.00503	< 0.00553	< 0.00530		
Methyl tertiary-butyl ether	0.32	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Methylene chloride	0.02	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Styrene	4	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Tetrachloroethylene	0.06	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Toluene	12	MAC		< 0.00738	< 0.00584	< 0.00496	< 0.00503	< 0.00553	< 0.00530		
1,1,1-Trichloroethane	2	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
1,1,2-Trichloroethane	0.02	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Trichloroethylene	0.06	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Vinyl Acetate	10	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
Vinyl Chloride	0.01	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
o-Xylene	6.5	MAC		NA	NA	< 0.00496	NA	NA	< 0.00530		
m,p-Xylenes	5.6	MAC		NA	NA	< 0.00992	NA	NA	< 0.0106		
Xylenes (total)	5.6	MAC		< 0.0158	< 0.0175	< 0.0149	< 0.0151	< 0.00553	< 0.0159		

Notes:

Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

< = Analyte not detected (i.e. less than RL or MDL)

All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.

NA = This constituent was not analyzed.

NE = No remediation objective established by the IEPA for this constituent.

Bold identifies an exceedence of the referenced objective.

TRUENORTH CONSULTANTS

TABLE 2

Summary of Soil Analytical Results - Soil Characterization Sampling

Semi-Volatile Organic Compounds (SVOCs)

CLIENT: Civiltech Engineering, Inc.
SITE: East Park Boulevard, East Park Boulevard alley; East Plymouth Street and East St. Charles Road alley, Villa Park, Illinois
PROJECT NUMBER: TII8839

SAMPLE DATE: December 26, 2018
LABORATORY: PDC Labratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 5035A/8260B

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	PLY-1	PLY-3	A-STC-1	PAR-1	PAR-2	A-PAR-1		
			Sample Date	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018		
			Depth	2-4'	2-4'	6-8'	0-2'	0-2'	2-4'		
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay		
Acenaphthene	570	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Anthracene	12000	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Benzo(a)anthracene	1.8	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Benzo(b)fluoranthene	2.1	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Benzo(k)fluoranthene	9.0	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Benzo(a)pyrene	2.1	MAC		< 0.0641	< 0.0669	< 0.0709	< 0.0658	< 0.0659	< 0.0764		
Benzoic acid	400	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Bis(2-chloroethyl)ether	0.66	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Bis(2-ethylhexyl)phthalate	46	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Butyl benzyl phthalate	930	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Carbazole	0.6	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
4-Chloroaniline	0.7	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2-Chlorophenol	1.5	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Chrysene	88	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Di-n-butyl phthalate	2300	MAC		NA	NA	< 1.42	NA	NA	< 1.53		
Di-n-octyl phthalate	1600	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Dibenz(a,h)anthracene	0.42	MAC		< 0.0641	< 0.0669	< 0.0709	< 0.0658	< 0.0659	< 0.0764		
3,3'-Dichlorobenzidine	1.3	MAC		NA	NA	< 0.00591	NA	NA	< 0.00637		
2,4-Dichlorophenol	0.48	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Diethyl phthalate	470	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2,4-Dimethylphenol	9	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2,4-Dinitrophenol	3.3	MAC		NA	NA	< 0.118	NA	NA	< 0.127		
2,4-Dinitrotoluene	0.25	MAC		NA	NA	< 0.118	NA	NA	< 0.127		
2,6-Dinitrotoluene	0.26	MAC		NA	NA	< 0.118	NA	NA	< 0.127		
Fluoranthene	3100	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Fluorene	560	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Hexachlorobenzene	0.4	MAC		NA	NA	< 0.118	NA	NA	< 0.127		
Hexachlorocyclopentadiene	1.1	MAC		NA	NA	< 0.787	NA	NA	< 0.848		
Hexachloroethane	0.5	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Indeno(1,2,3-cd)pyrene	1.6	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Isophorone	8	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2-Methylphenol	15	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Naphthalene	1.8	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
Nitrobenzene	0.26	MAC		NA	NA	< 0.0709	NA	NA	< 0.0764		
N-Nitroso-di-n-propylamine	0.0018	MAC		NA	NA	< 0.000704	NA	NA	< 0.000759		
N-Nitrosodiphenylamine	1	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Pentachlorophenol	0.02	MAC		NA	NA	< 0.0118	NA	NA	< 0.0127		
Phenol	100	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
Pyrene	2300	MAC		< 0.349	< 0.365	< 0.393	< 0.359	< 0.360	< 0.424		
1,2,4-Trichlorobenzene	5	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2,4,5-Trichlorophenol	26	MAC		NA	NA	< 0.393	NA	NA	< 0.424		
2,4,6-Trichlorophenol	0.66	MAC		NA	NA	< 0.118	NA	NA	< 0.127		

Notes:

Constituents that are not identifed in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

< = Analyte not detected (i.e. less than RL or MDL)
All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.
NA = This constituent was not analyzed.
NE = No remediation objective established by the IEPA for this constituent.
Bold identifies an exceedence of the referenced objective.

TRUENORTH CONSULTANTS

TABLE 3

Summary of Soil Analytical Results - Soil Characterization Sampling

Polychlorinated Biphenyls (PCBs)

CLIENT: Civiltech Engineering, Inc.
SITE: East Park Boulevard, East Park Boulevard alley; East Plymouth Street and East St. Charles Road alley, Villa Park, Illinois
PROJECT NUMBER: TII8839

SAMPLE DATE: December 26, 2018
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 6020

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	PLY-1	PLY-3	A-STC-1	PAR-1	PAR-2	A-PAR-1		
			Sample Date	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018		
			Depth	2-4'	2-4'	6-8'	0-2'	0-2'	2-4'		
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay		
Aroclor 1016	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1221	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1232	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1242	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1248	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1254	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		
Aroclor 1260	1	MAC		NA	< 0.042	< 0.0398	NA	NA	NA		

Notes:
Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H
< = Analyte not detected (i.e. less than RL or MDL)
All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.
NA = This constituent was not analyzed.
NE = No remediation objective established by the IEPA for this constituent.
Bold identifies an exceedence of the referenced objective.

TRUE NORTH CONSULTANTS

TABLE 4

Summary of Soil Analytical Results - Soil Characterization Sampling

Resource Conservation Recovery Act (RCRA) Metals

CLIENT: Civiltech Engineering, Inc.
SITE: East Park Boulevard, East Park Boulevard alley; East Plymouth Street and East St. Charles Road alley, Villa Park, Illinois
PROJECT NUMBER: TII8839

SAMPLE DATE: December 26, 2018
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 6010/6020

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	PLY-1	PLY-3	A-STC-1	PAR-1	PAR-2	A-PAR-1		
			Sample Date	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018	12/26/2018		
			pH	8.3	8.7	8.0	7.8	8.3	7.9		
			6.25 ≤ pH ≤ 9.0	Yes	Yes	Yes	Yes	Yes	Yes		
			Depth	2-4'	2-4'	6-8'	0-2'	0-2'	2-4'		
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay		
Arsenic	**13**	**MAC**		9.5	10.9	9.22	**15.1**	10.8	**29.9**		
Barium	**1,500**	**MAC**		34.8	90.3	41.9	65.3	95.2	59.6		
Cadmium	**5.2**	**MAC**		0.697	0.732	0.575	0.67	0.821	1.02		
Chromium	**21**	**MAC**		17.1	**24.8**	18	21	**22.4**	**22.2**		
Lead	**107**	**MAC**		15.6	20.6	12.4	32.4	48.5	26.9		
Mercury	**0.89**	**MAC**		< 1.16	< 1.24	< 1.19	< 1.22	< 1.13	< 1.27		
Selenium	**1.3**	**MAC**		< 0.463	< 0.495	< 0.477	< 0.487	< 0.453	< 0.508		
Silver	**4.4**	**MAC**		< 0.0578	< 0.0619	< 0.0596	< 0.0608	< 0.0566	< 0.0635		

Notes:
Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H
< = Analyte not detected (i.e. less than RL or MDL)
All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.
NA = This constituent was not analyzed.
NE = No remediation objective established by the IEPA for this constituent.
Bold identifies an exceedence of the referenced objective.

TRUE NORTH CONSULTANTS

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Villa Park Street Improvements Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave, & Stone Rd - See attached Figures

City: Villa Park State: IL Zip Code: 60181

County: Lake Township: York

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.89794 (Decimal Degrees) Longitude: - 87.97402 (-Decimal Degrees)

Identify how the lat/long data were determined:

○ GPS ⊘ Map Interpolation ○ Photo Interpolation ○ Survey ○ Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Village of Villa Park

Street Address: 20 Ardmore Ave

PO Box: _____

City: Villa Park State: IL

Zip Code: 60181 Phone: 630-834-8500

Contact: _____

Email, if available: _____

Site Operator

Name: _____

Street Address: _____

PO Box: _____

City: _____ State: _____

Zip Code: _____ Phone: _____

Contact: _____

Email, if available: _____

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Villa Park Street Improvements Latitude: 41.89794 Longitude: - 87.97402

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

A limited historical & regulatory review was performed to identify PIPs. Site reconnaissance was performed while sampling to evaluate on-site environmental conditions & potential PIPs. Based on the nature & scope of the project, 5 soil samples were collected for indicator contaminants associated with identified PIPs, and screened with a PID. Figure 2 shows sample locations.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached analytical summary tables, laboratory reports and associated NELAC certification. Figure 2 identifies the project area that is covered by this certification.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Ryan M. LaDieu, P.E. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name:	True North Consultants
Street Address:	1000 E Warrenville Road, Suite 140
City:	Naperville State: IL Zip Code: 60563
Phone:	630.717.2880

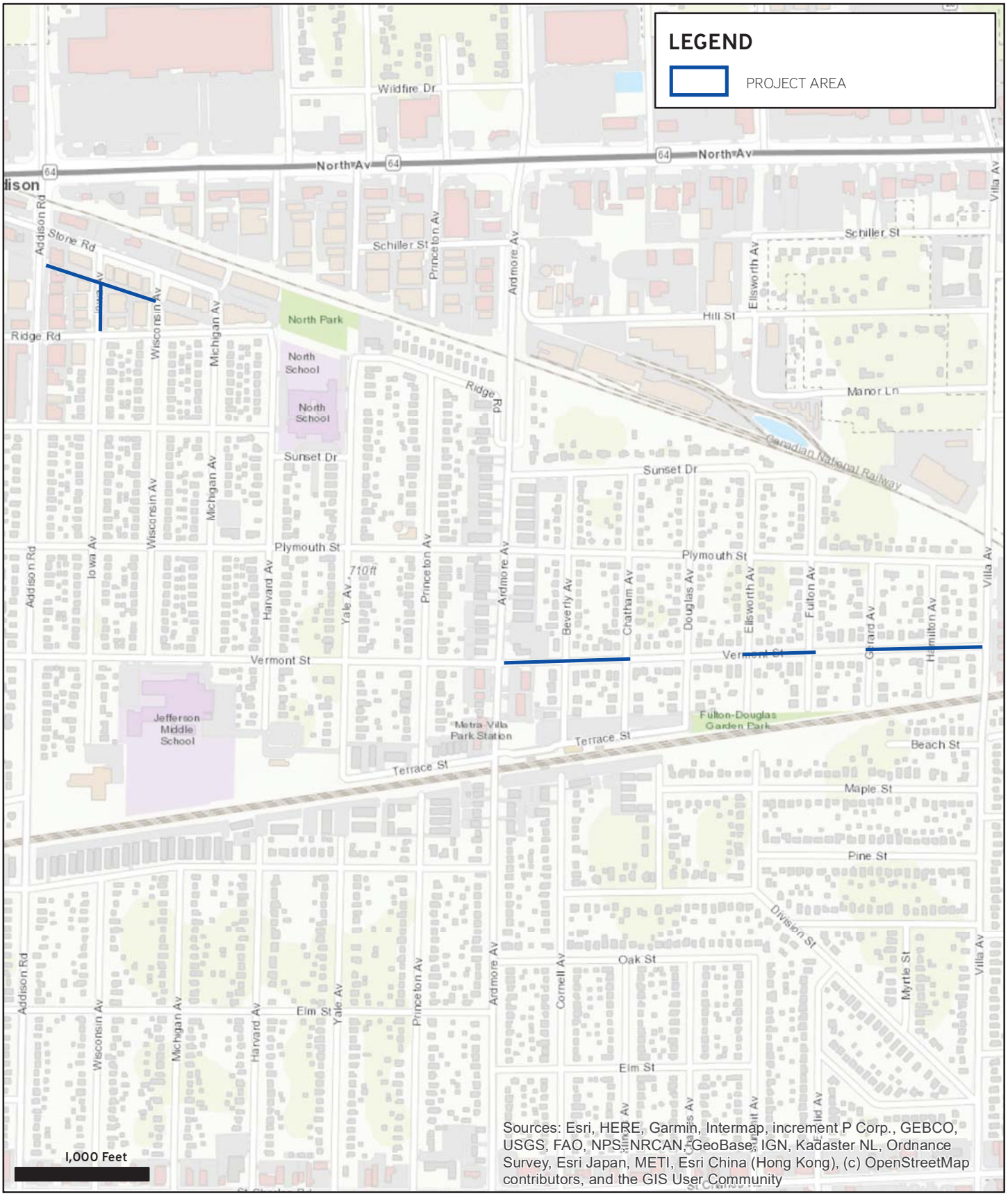
Ryan M. LaDieu
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Dec 30, 2019
Date:

P.E or L.P.G. Seal:

LICENSED PROFESSIONAL ENGINEER
RYAN M. LaDIEU
062-053687
STATE OF ILLINOIS

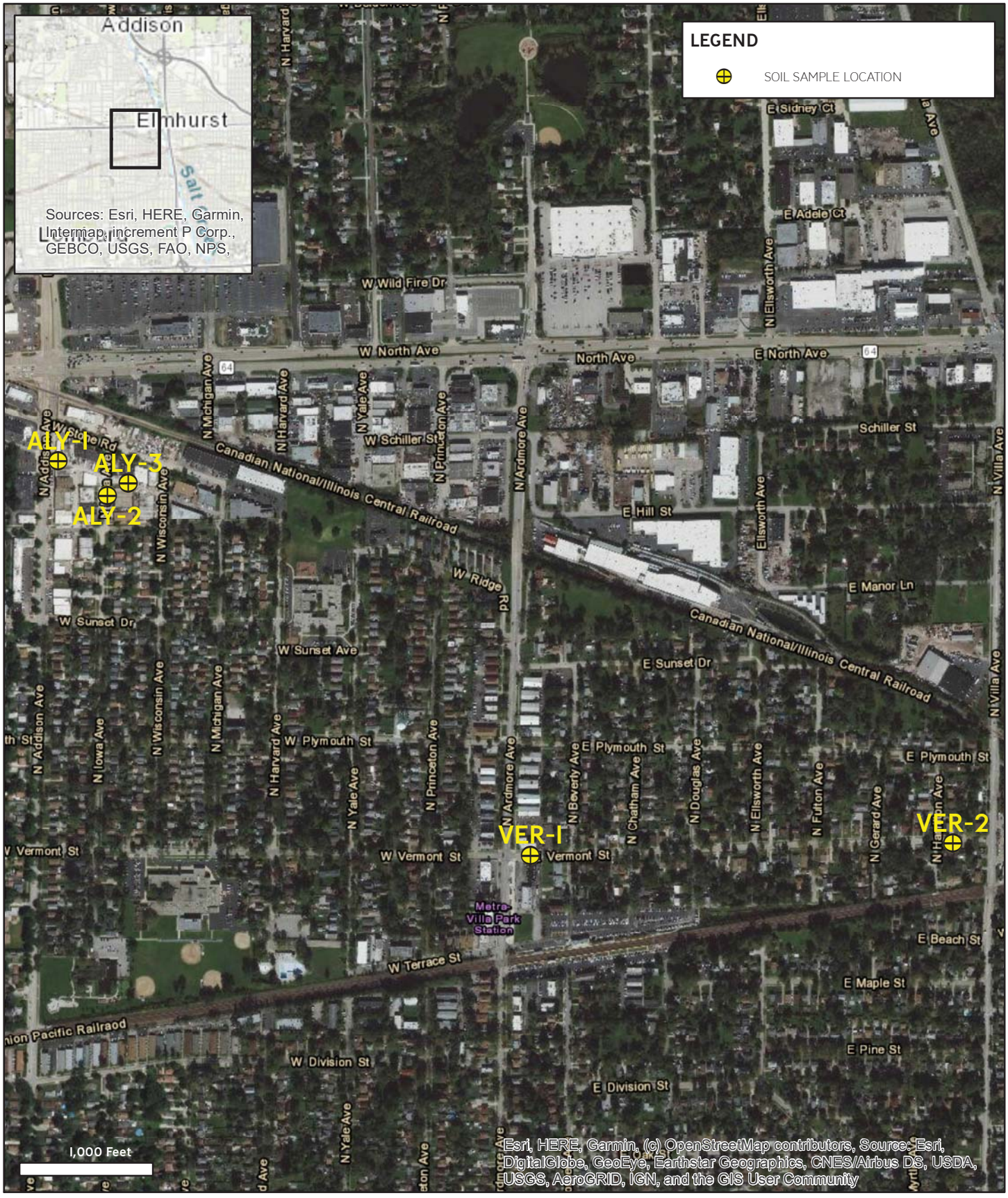


TRUE NORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF VERMONT ST; ALLEYS BETWEEN RIDGE RD, ADDISON RD, WISCONSIN AVE & STONE RD VILLA PARK, ILLINOIS
CLIENT	VILLAGE OF VILLA PARK 20 ARDMORE AVENUE VILLA PARK, ILLINOIS

PROJECT	TII9877
DATE	12/30/2019
SCALE	1 inch=1,000 feet

FIGURE 1



TRUENORTH CONSULTANTS
1000 EAST WARRENVILLE ROAD
NAPERVILLE, ILLINOIS 60563
ENVIRONMENT : DEVELOPMENT : INFRASTRUCTURE

SITE	PORTIONS OF VERMONT ST; ALLEYS BETWEEN RIDGE RD, ADDISON RD, WISCONSIN AVE & STONE RD VILLA PARK, ILLINOIS
CLIENT	VILLAGE OF VILLA PARK 20 ARDMORE AVENUE VILLA PARK, ILLINOIS

PROJECT	TII9877
DATE	12/30/2019
SCALE	1 inch=1,000 feet

FIGURE 2

TABLE I

Summary of Soil Analytical Results - Soil Characterization Sampling

Volatile Organic Compounds (VOCs)

CLIENT: Civiltech Engineering, Inc.
SITE: Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave & Stone Rd, Villa Park, IL
PROJECT NUMBER: TII9877

SAMPLE DATE: December 13, 2019
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 5035A/8260B

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	ALY-1	ALY-2	ALY-3	VER-1	VER-2			
			Sample Date	12/13/2019	12/13/2019	12/13/2019	12/13/2019	12/13/2019			
			Depth	7.5-10'	5-7.5'	7.5-10'	7.5-10'	7.5-10'			
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
Acetone	**25**	**MAC**		< 0.144	< 0.0704	< 0.0801	< 0.332	< 0.0600			
Benzene	**0.03**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Bromodichloromethane	**0.6**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Bromoform	**0.8**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Bromomethane	**0.2**	**MAC**		< 0.0111	< 0.00880	< 0.0100	< 0.0221	< 0.0120			
2-Butanone	**17**	**MAC**		< 0.0111	< 0.00880	< 0.0100	< 0.0221	< 0.0120			
Carbon disulfide	**9**	**MAC**		< 0.0111	< 0.00880	< 0.0100	0.0537	< 0.0120			
Carbon tetrachloride	**0.07**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Chlorobenzene	**1**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Chloroform	**0.3**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,2-Dibromo-3-chloropropane	**0.002**	**MAC**		< 0.00111	< 0.000880	< 0.00100	< 0.00221	< 0.00120			
Dibromochloromethane	**0.4**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,2-Dibromoethane	**0.005**	**MAC**		< 0.00222	< 0.00176	< 0.00200	< 0.00443	< 0.00240			
1,2-Dichlorobenzene	**17**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,4-Dichlorobenzene	**2**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,1-Dichloroethane	**23**	**MAC**		< 0.00554	< 0.00440	0.0257	< 0.0111	< 0.00600			
1,2-Dichloroethane	**0.02**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,1-Dichloroethylene	**0.06**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
cis-1,2-Dichloroethylene	**0.4**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
trans-1,2-Dichloroethylene	**0.7**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,2-Dichloropropane	**0.03**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
cis-1,3-Dichloropropene	**0.005**	**MAC**		< 0.00332	< 0.00264	< 0.00300	< 0.00664	< 0.00360			
trans-1,3-Dichloropropene	**0.005**	**MAC**		< 0.00332	< 0.00264	< 0.00300	< 0.00664	< 0.00360			
1,3-Dichloropropene (total)	**0.005**	**MAC**		< 0.00332	< 0.00264	< 0.00300	< 0.00664	< 0.00360			
Ethylbenzene	**13**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Methyl tertiary-butyl ether	**0.32**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Methylene chloride	**0.02**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Styrene	**4**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Tetrachloroethylene	**0.06**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Toluene	**12**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,1,1-Trichloroethane	**2**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
1,1,2-Trichloroethane	**0.02**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Trichloroethylene	**0.06**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Vinyl Acetate	**10**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
Vinyl Chloride	**0.01**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
o-Xylene	**6.5**	**MAC**		< 0.00554	< 0.00440	< 0.00500	< 0.0111	< 0.00600			
m,p-Xylenes	**5.6**	**MAC**		< 0.0111	< 0.00880	< 0.0100	< 0.0221	< 0.0120			
Xylenes (total)	**5.6**	**MAC**		< 0.0166	< 0.0132	< 0.0150	< 0.0332	< 0.0180			

Notes:

Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

< = Analyte not detected (i.e. less than RL or MDL)
All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.
NA = This constituent was not analyzed.
NE = No remediation objective established by the IEPA for this constituent.
Bold identifies an exceedence of the referenced objective.

TRUE NORTH CONSULTANTS

TABLE 2

Summary of Soil Analytical Results - Soil Characterization Sampling

Semi-Volatile Organic Compounds (SVOCs)

CLIENT: Civiltech Engineering, Inc.

SAMPLE DATE: December 13, 2019

SITE: Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave & Stone Rd, Villa Park, IL

LABORATORY: PDC Laboratories, Inc.

PROJECT NUMBER: TII9877

MATRIX: Soil

Analytical Method: EPA Method 8270

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	ALY-1	ALY-2	ALY-3	VER-1	VER-1			
			Sample Date	12/13/2019	12/13/2019	12/13/2019	12/13/2019	12/13/2019			
			Depth	7.5-10'	5-7.5'	7.5-10'	7.5-10'	7.5-10'			
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
Acenaphthene	570	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Anthracene	12000	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Benzo(a)anthracene	1.8	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Benzo(b)fluoranthene	2.1	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Benzo(k)fluoranthene	9.0	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Benzo(a)pyrene	2.1	MAC		< 0.0705	< 0.0680	< 0.0815	< 0.0720	< 0.133			
Benzoic Acid	400	MAC		< 0.391	NA	NA	NA	< 0.737			
Bis(2-chloroethyl)ether	0.66	MAC		< 0.391	NA	NA	NA	< 0.737			
Bis(2-ethylhexyl)phthalate	46	MAC		< 0.391	NA	NA	NA	< 0.737			
Butyl benzyl phthalate	930	MAC		< 0.391	NA	NA	NA	< 0.737			
Carbazole	0.6	MAC		< 0.391	NA	NA	NA	< 0.737			
4-Chloroaniline	0.7	MAC		< 0.391	NA	NA	NA	< 0.737			
2-Chlorophenol	1.5	MAC		< 0.391	NA	NA	NA	< 0.737			
Chrysene	88	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Di-n-butyl phthalate	2300	MAC		< 0.391	NA	NA	NA	< 0.737			
Di-n-octyl phthalate	1600	MAC		< 0.391	NA	NA	NA	< 0.737			
Dibenz(a,h)anthracene	0.42	MAC		< 0.0705	< 0.0680	< 0.0815	< 0.0720	< 0.133			
3,3'-Dichlorobenzidine	1.3	MAC		< 0.0787	NA	NA	NA	< 0.148			
2,4-Dichlorophenol	0.48	MAC		< 0.391	NA	NA	NA	< 0.737			
Diethyl phthalate	470	MAC		< 0.235	NA	NA	NA	< 0.443			
2,4-Dimethylphenol	9	MAC		< 0.391	NA	NA	NA	< 0.737			
2,4-Dinitrophenol	3.3	MAC		< 0.176	NA	NA	NA	< 0.332			
2,4-Dinitrotoluene	0.25	MAC		< 0.117	NA	NA	NA	< 0.221			
2,6-Dinitrotoluene	0.26	MAC		< 0.117	NA	NA	NA	< 0.221			
Fluoranthene	3100	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Fluorene	560	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Hexachlorobenzene	0.4	MAC		< 0.117	NA	NA	NA	< 0.221			
Hexachlorocyclopentadiene	1.1	MAC		< 0.391	NA	NA	NA	< 0.737			
Hexachloroethane	0.5	MAC		< 0.235	NA	NA	NA	< 0.443			
Indeno(1,2,3-cd)pyrene	1.6	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Isophorone	8	MAC		< 0.391	NA	NA	NA	< 0.737			
2-Methylphenol	15	MAC		< 0.391	NA	NA	NA	< 0.737			
Naphthalene	1.8	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
Nitrobenzene	0.26	MAC		< 0.0881	NA	NA	NA	< 0.166			
N-Nitroso-di-n-propylamine	0.0018	MAC		< 0.000700	NA	NA	NA	< 0.00132			
N-Nitrosodiphenylamine	1	MAC		< 0.391	NA	NA	NA	< 0.737			
Pentachlorophenol	0.02	MAC		< 0.0117	NA	NA	NA	< 0.0221			
Phenol	100	MAC		< 0.391	NA	NA	NA	< 0.737			
Pyrene	2300	MAC		< 0.391	< 0.340	< 0.408	< 0.360	< 0.737			
1,2,4-Trichlorobenzene	5	MAC		< 0.391	NA	NA	NA	< 0.737			
2,4,5-Trichlorophenol	26	MAC		< 0.391	NA	NA	NA	< 0.737			
2,4,6-Trichlorophenol	0.66	MAC		< 0.117	NA	NA	NA	< 0.221			

Notes:

Constituents that are not identifed in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

< = Analyte not detected (i.e. less than RL or MDL)

All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.

NA = This constituent was not analyzed.

NE = No remediation objective established by the IEPA for this constituent.

Bold identifies an exceedence of the referenced objective.

TRUENORTH CONSULTANTS

TABLE 3

Summary of Soil Analytical Results - Soil Characterization Sampling

Polychlorinated Biphenyls (PCBs)

CLIENT: Civiltech Engineering, Inc.

SAMPLE DATE: December 13, 2019

SITE: Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave & Stone Rd, Villa Park, IL

LABORATORY: PDC Laboratories, Inc.

PROJECT NUMBER: TII9877

MATRIX: Soil

Analytical Method: EPA Method 8082

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	ALY-1	ALY-2	ALY-3	VER-1	VER-1			
			Sample Date	12/13/2019	12/13/2019	12/13/2019	12/13/2019	12/13/2019			
			Depth	7.5-10'	5-7.5'	7.5-10'	7.5-10'	7.5-10'			
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
Aroclor 1016	1	MAC		< 0.094	NA	NA	NA	NA			
Aroclor 1221	1	MAC		< 0.19	NA	NA	NA	NA			
Aroclor 1232	1	MAC		< 0.094	NA	NA	NA	NA			
Aroclor 1242	1	MAC		< 0.094	NA	NA	NA	NA			
Aroclor 1248	1	MAC		< 0.094	NA	NA	NA	NA			
Aroclor 1254	1	MAC		< 0.19	NA	NA	NA	NA			
Aroclor 1260	1	MAC		< 0.19	NA	NA	NA	NA			

Notes:

Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

< = Analyte not detected (i.e. less than RL or MDL)

All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.

NA = This constituent was not analyzed.

NE = No remediation objective established by the IEPA for this constituent.

Bold identifies an exceedence of the referenced objective.

TRUENORTH CONSULTANTS

TABLE 4

Summary of Soil Analytical Results - Soil Characterization Sampling

Resource Conservation Recovery Act (RCRA) Metals

CLIENT: Civiltech Engineering, Inc.
SITE: Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave & Stone Rd, Villa Park, IL
PROJECT NUMBER: TII9875

SAMPLE DATE: December 13, 2019
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 6010/6020

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	ALY-1	ALY-2	ALY-3	VER-1	VER-2			
			Sample Date	12/13/2019	12/13/2019	12/13/2019	12/13/2019	12/13/2019			
			pH	8.59	7.64	7.62	7.83	7.98			
			6.25 ≤ pH ≤ 9.0	Yes	Yes	Yes	Yes	Yes			
			Depth	7.5-10'	5-7.5'	7.5-10'	7.5-10'	7.5-10'			
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
Arsenic	**13**	**MAC**		6.4	8.8	11	3.4	6.6			
Barium	**1,500**	**MAC**		51	39	75	72	60			
Cadmium	**5.2**	**MAC**		< 1.2	< 1.2	< 1.4	< 2.2	< 1.2			
Chromium	**21**	**MAC**		12	18	15	17	21			
Lead	**107**	**MAC**		12	17	25	12	13			
Mercury	**0.89**	**MAC**		< 0.23	< 0.24	< 0.27	< 0.44	< 0.24			
Selenium	**1.3**	**MAC**		0.45	0.57	0.91	**4.7**	0.67			
Silver	**4.4**	**MAC**		< 2.3	< 2.4	< 2.7	< 4.4	< 2.4			

Notes:
Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H
< = Analyte not detected (i.e. less than RL or MDL)
All data reported in milligrams per kilogram (mg/kg) unless otherwise noted.
NA = This constituent was not analyzed.
NE = No remediation objective established by the IEPA for this constituent.
Bold identifies an exceedence of the referenced objective.

TRUE NORTH CONSULTANTS

TABLE 5

Summary of Soil Analytical Results - Soil Characterization Sampling

TCLP Resource Conservation Recovery Act (RCRA) Metals

CLIENT: Civiltech Engineering, Inc.
SITE: Portions of Vermont St; Alleys between Ridge Rd, Addison Rd, Wisconsin Ave & Stone Rd, Villa Park, IL
PROJECT NUMBER: TII9877

SAMPLE DATE: December 13, 2019
LABORATORY: PDC Laboratories, Inc.
MATRIX: Soil

Analytical Method: EPA Method 6020

Contaminant of Concern	Maximum Allowable Concentration (MAC) within a Metropolitan Statistical Area (MSA)		Sample ID	ALY-1	ALY-2	ALY-3	VER-1	VER-1			
			Sample Date	12/13/2019	12/13/2019	12/13/2019	12/13/2019	12/13/2019			
			Depth	7.5-10'	5-7.5'	7.5-10'	7.5-10'	7.5-10'			
	Value	Objective	Soil Type	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
Arsenic	**0.05**	**SCOG**		NA	NA	NA	NA	NA			
Barium	**2**	**SCOG**		NA	NA	NA	NA	NA			
Cadmium	**0.005**	**SCOG**		NA	NA	NA	NA	NA			
Chromium	**0.1**	**SCOG**		NA	NA	NA	NA	NA			
Lead	**0.0075**	**SCOG**		NA	NA	NA	NA	NA			
Mercury	**0.002**	**SCOG**		NA	NA	NA	NA	NA			
Selenium	**0.05**	**SCOG**		NA	NA	NA	<0.010	NA			
Silver	**0.05**	**SCOG**		NA	NA	NA	NA	NA			

Notes:

Constituents that are not identified in 35 IAC 1100 Subpart F (MAC Table) are compared to the Metropolitan Statistical Area Background Concentration found in 35 IAC 742 Appendix A, Table H

As an alternative to the subject maximum allowable concentration value, compliance verification may be determined by comparing soil sample extraction results (TCLP/SPLP) for this constituent to the respective TACO Class I Soil Component of the Groundwater Ingestion Exposure Route objective (35 Ill. Admin. Code 742.Appendix B, Table A). (See 35 IAC 1100.610(b)(1)(B); 1100.610(b)(3)(C)).

< = Analyte not detected (i.e. less than RL or MDL)

All data reported in milligrams per liter (mg/L) unless otherwise noted.

NA = This constituent was not analyzed.

NE = No remediation objective established by the IEPA for this constituent.

Bold identifies an exceedence of the referenced objective.

TRUE NORTH CONSULTANTS