

If you plan to submit a bid directly to the Department of Transportation

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

REQUESTS FOR AUTHORIZATION TO BID

Contractors downloading and/or ordering CD-ROM's and are wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) and the ORIGINAL, signed and notarized, "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID? When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization form within a reasonable time of complete and correct original document submittal should contact the department as to status. This is critical in the week before the letting. These documents must be received three days before the letting date. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS: It is the contractor's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum will be placed with the contract number. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidder check IDOT's website <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT is not responsible for any e-mail related failures.

Addenda Questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or garmantr@dot.il.gov.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

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

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	(217)782-3413
Preparation and submittal of bids	(217)782-7806
Mailing of plans and proposals	(217)782-7806
Electronic plans and proposals	(217)524-1642

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated the addendum and/or revision prior to submitting their bid. Failure by the bidder to include an addendum could result in a bid being rejected as irregular.

132

RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting April 27, 2007

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.

(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

Notice To Bidders, Specifications, Proposal, Contract and Contract Bond



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Route VIRGIL GILMAN TRAIL
Project M-8003(642)
District 1 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included

Prepared by

F

Checked by

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Proposal Forms and Plans" he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Proposal Denial and/or Authorization Form**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

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

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806
Mailing of CD-ROMS	217/782-7806

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

for the improvement identified and advertised for bids in the Invitation for Bids as:

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Project M-8003(642)
Route VIRGIL GILMAN TRAIL
District 1 Construction Funds**

Project consists of the construction of 2,038 feet of 10' wide bituminous bike trail connecting the two existing Naperville Park District bike trails east and west of Illinois Route 59 and the construction of a 604' - 3 7/8" by 14' pedestrian bridge over Illinois Route 59 located in the City of Naperville.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

RETURN WITH BID

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>		<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	
Up to	\$5,000	\$150		\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to \$10,000	\$300		\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to \$50,000	\$1,000		\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to \$100,000	\$3,000		\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to \$150,000	\$5,000		\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to \$250,000	\$7,500		\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to \$500,000	\$12,500		\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to \$1,000,000	\$25,000		\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to \$1,500,000	\$50,000		\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to \$2,000,000	\$75,000		over		\$35,000,000	\$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ \$(_____). If this proposal is accepted and the undersigned shall fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

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 guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for:

Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

BD 354 (Rev. 11/2001)

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for 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 provided elsewhere in the contract.
8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
WILL	197	01	05-00130-00-BR (NAPERVILLE)	M-8003/642/000	VIRGIL
					GILMAN
					TRAIL

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX001910	PRECAST BLK RET WALL	SQ FT	115.000 X	=		=	
XX002161	ABAND EX WATER MAIN	EACH	1.000 X	=		=	
XX002202	VEH CONT BOLLARDS	EACH	3.000 X	=		=	
XX004056	MECH ST EARTH RET WL	SQ FT	5,308.000 X	=		=	
XX006788	WM LINE STOP 16	EACH	1.000 X	=		=	
XX006789	DI WM BEND 90 16"	EACH	2.000 X	=		=	
X0322508	PED TRUSS SUPERSTR	SQ FT	8,410.000 X	=		=	
X0322939	RELOC EX FLAR END SEC	EACH	2.000 X	=		=	
X0323174	DI WM BEND 45 16"	EACH	2.000 X	=		=	
X0323191	DI WAT MN TEE, 16 X 6	EACH	1.000 X	=		=	
X0323192	DI WAT MN TEE, 16X12	EACH	1.000 X	=		=	
X0323842	WM LINE STOP 12	EACH	1.000 X	=		=	
X0325207	TV INSPECT OF SEWER	FOOT	2,400.000 X	=		=	
Z0076600	TRAINEES	HOURL	500.000 X	=	0.80	=	400.00
20200100	EARTH EXCAVATION	CU YD	70.000 X	=		=	

VIRGIL
05-00130-00-BR
WILL

(NAPERVILLE)

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 83889

ECMS002 DTGECM03 ECMR003 PAGE 2
RUN DATE - 03/20/07
RUN TIME - 210346

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
20201200	REM & DISP UNS MATL	CU YD	1,468.000 X	=			
20400800	FURNISHED EXCAV	CU YD	1,505.000 X	=			
20700400	POROUS GRAN EMB SPEC	CU YD	376.000 X	=			
20700420	POROUS GRAN EMB SUBGR	CU YD	903.000 X	=			
20800150	TRENCH BACKFILL	CU YD	307.000 X	=			
21001000	GEOTECH FAB F/GR STAB	SQ YD	3,210.000 X	=			
21101625	TOPSOIL F & P 6	SQ YD	4,215.000 X	=			
21301072	EXPLOR TRENCH 72	FOOT	40.000 X	=			
25000210	SEEDING CL 2A	ACRE	0.900 X	=			
25000400	NITROGEN FERT NUTR	POUND	78.000 X	=			
25000500	PHOSPHORUS FERT NUTR	POUND	78.000 X	=			
25000600	POTASSIUM FERT NUTR	POUND	78.000 X	=			
25100630	EROSION CONTR BLANKET	SQ YD	3,310.000 X	=			
28000400	PERIMETER EROS BAR	FOOT	4,000.000 X	=			
28000720	MULCH METHOD 2	ACRE	0.900 X	=			

VIRGIL
 05-00130-00-BR (NAPERVILLE)
 WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 83889

ECMS002 DTGECM03 ECMR003 PAGE 3
 RUN DATE - 03/20/07
 RUN TIME - 210346

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
35101800	AGG BASE CSE B 6	SQ YD	1,300.000 X	=		=	
35102000	AGG BASE CSE B 8	SQ YD	1,435.000 X	=		=	
40300100	BIT MATLS PR CT	GALLON	680.000 X	=		=	
40603080	HMA BC IL-19.0 N50	TON	181.000 X	=		=	
40603310	HMA SC "C" N50	TON	339.000 X	=		=	
42400440	PC CONC SIDEWALK 6 SP	SQ FT	4,499.000 X	=		=	
44000100	PAVEMENT REM	SQ YD	1,454.000 X	=		=	
44001700	COMB C C&G REM & REPL	FOOT	136.000 X	=		=	
50200100	STRUCTURE EXCAVATION	CU YD	1,144.200 X	=		=	
50300225	CONC STRUCT	CU YD	166.000 X	=		=	
50300285	FORM LINER TEX SURF	SQ FT	614.000 X	=		=	
50500405	F & E STRUCT STEEL	POUND	3,376.000 X	=		=	
50800205	REINF BARS, EPOXY CTD	POUND	32,940.000 X	=		=	
50901720	BICYCLE RAILING	FOOT	507.000 X	=		=	
51201600	FUR STL PILE HP12X53	FOOT	1,326.000 X	=		=	

VIRGIL
 05-00130-00-BR (NAPERVILLE)
 WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 83889

ECMS002 DTGECM03 ECMR003 PAGE 4
 RUN DATE - 03/20/07
 RUN TIME - 210346

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
51202305	DRIVING PILES	FOOT	1,326.000 X				
51203600	TEST PILE ST HP12X53	EACH	6.000 X				
51204650	PILE SHOES	EACH	36.000 X				
51500100	NAME PLATES	EACH	1.000 X				
542A1057	P CUL CL A 2 12	FOOT	78.000 X				
54200430	P CUL 1 RCCP 15	FOOT	101.000 X				
54213657	PRC FLAR END SEC 12	EACH	2.000 X				
54213660	PRC FLAR END SEC 15	EACH	1.000 X				
56100600	WATER MAIN 6	FOOT	10.000 X				
56100900	WATER MAIN 12	FOOT	10.000 X				
56101000	WATER MAIN 16	FOOT	117.000 X				
56105200	WATER VALVES 12	EACH	1.000 X				
56105300	WATER VALVES 16	EACH	1.000 X				
56400100	FIRE HYDNTS TO BE MVD	EACH	1.000 X				
58700300	CONCRETE SEALER	SQ FT	2,817.000 X				

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60207605	CB TC T8G	EACH	4.000 X			=	
60218400	MAN TA 4 DIA T1F CL	EACH	1.000 X			=	
60236200	INLETS TA T8G	EACH	1.000 X			=	
60248900	VV TA 5 DIA T1F CL	EACH	2.000 X			=	
60266500	VV REMOVED	EACH	2.000 X			=	
67000500	ENGR FIELD OFFICE B	CAL MO	5.000 X			=	
67100100	MOBILIZATION	L SUM	1.000 X			=	
70102630	TR CONT & PROT 701601	L SUM	1.000 X			=	
72400500	RELOC SIN PAN ASSY TA	EACH	1.000 X			=	
72900100	METAL POST TY A	FOOT	15.000 X			=	
78001110	PAINT PVT MK LINE 4	FOOT	2,040.000 X			=	
80400100	ELECT SERV INSTALL	EACH	1.000 X			=	
81100200	CON AT ST 3/4 GALVS	FOOT	610.000 X			=	
81300100	JUN BX SS AS 4X4X3	EACH	2.000 X			=	
81300320	JUN BX SS AS 8X8X6	EACH	2.000 X			=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
81603015	UD 3#10#8G XLPUSE 3/4	FOOT	204.000 X	=			
81700315	EC C EPR RHW 3-1C 10	FOOT	610.000 X	=			
82103250	LUM SV HOR MT PC 250W	EACH	2.000 X	=			
83012100	LT P A 30MH TEN MT	EACH	2.000 X	=			
83600300	LIGHT POLE FDN 30D	FOOT	24.000 X	=			

TOTAL \$

- NOTE:
1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
 2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
 3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
 4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

RETURN WITH BID

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

A. The assurances 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. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any state agency from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$150,700.00. Sixty percent of the salary is \$90,420.00.

RETURN WITH BID

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

H. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

RETURN WITH BID

I. Insider Information

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

A. 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. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business 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 the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

RETURN WITH BID

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

E. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

F. Drug Free Workplace

1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

G. Debt Delinquency

1. The Illinois Procurement Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

I. Addenda

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will 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 and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. 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. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the 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 forces. Types of work or craft work 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 that does not have an applicable apprenticeship or training program. **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 as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA - FEDERAL

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. In order to fulfill this requirement, it shall not be necessary that an 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.

L. Executive Order Number 1 (2007) Regarding Lobbying on Government Procurements

The bidder hereby warrants and certifies that they have complied and will comply with the requirements set forth in this Order. The requirements of this warrant and certification are a material part of the contract, and the contractor shall require this warrant and certification provision to be included in all approved subcontracts.

TO BE RETURNED WITH BID

IV. DISCLOSURES

A. The disclosures 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. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

C. Disclosure Form Instructions

Form A: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may sign the following certification statement indicating that the information previously submitted by the bidder is, as of the date of signature, current and accurate. The Certification must be signed and dated by a person who is authorized to execute contracts for the bidding company. Before signing this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder signs the Certification, the Bidder should proceed to Form B instructions.

CERTIFICATION STATEMENT

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

(Bidding Company)

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative

Date

Form A: For bidders who have NOT previously submitted the information requested in Form A

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$90,420.00? YES ___ NO ___
3. Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? YES ___ NO ___
(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. *Note: Signing the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, signed and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the signature box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

- The bid submitted for letting item _____ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$10,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$90,420.00 (60% of the Governor's salary as of 7/1/01). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet): % or \$ value of ownership/distributable income share: _____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH BID/OFFER

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___

- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the salary of the Governor as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.

Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.

Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.

Yes ___ No ___

RETURN WITH BID/OFFER

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by: _____
Name of Authorized Representative (type or print)

Completed by: _____
Title of Authorized Representative (type or print)

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative Date _____

RETURN WITH BID/OFFER

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form B
Other Contracts &
Procurement Related Information
Disclosure**

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___

If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE SIGNED

Name of Authorized Representative (type or print)	

Title of Authorized Representative (type or print)	
_____	_____
Signature of Authorized Representative	Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Project M-8003(642)
Route VIRGIL GILMAN TRAIL
District 1 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

- B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
 - Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
 - Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. **CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:**
1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____
 2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Project M-8003(642)
Route VIRGIL GILMAN TRAIL
District 1 Construction Funds**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

(IF AN INDIVIDUAL) Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP) Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm: _____

(IF A CORPORATION) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Attest _____
Signature _____
Business Address _____

(IF A JOINT VENTURE) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

Attest _____
Signature _____
Business Address _____

If more than two parties are in the joint venture, please attach an additional signature sheet.

RETURN WITH BID



Division of Highways
Proposal Bid Bond
(Effective November 1, 1992)

Item No.
Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We

as PRINCIPAL, and

held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, That Whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the Department; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

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 SURETY
(Company Name)
By: (Signature & Title) By: (Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
COUNTY OF

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

(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 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

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# Company/Bidder Name Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

for construction work advertised for bids by the Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Project M-8003(642)
Route VIRGIL GILMAN TRAIL
District 1 Construction Funds**



Illinois Department of Transportation



NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., April 27, 2007. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 83889
WILL County
Section 05-00130-00-BR (Naperville)
Project M-8003(642)
Route VIRGIL GILMAN TRAIL
District 1 Construction Funds**

Project consists of the construction of 2,038 feet of 10' wide bituminous bike trail connecting the two existing Naperville Park District bike trails east and west of Illinois Route 59 and the construction of a 604' - 3 7/8" by 14' pedestrian bridge over Illinois Route 59 located in the City of Naperville.

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Milton R. Sees, Acting Secretary

BD 351 (Rev. 01/2003)

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2007

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

SUPPLEMENTAL SPECIFICATIONS

Std. Spec. Sec.

Page No.

No Supplemental Specifications this year.

RECURRING SPECIAL PROVISIONS

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

<u>CHECK SHEET #</u>		<u>PAGE NO.</u>
1	X Additional State Requirements For Federal-Aid Construction Contracts (Eff. 2-1-69) (Rev. 1-1-07).....	1
2	X Subletting of Contracts (Federal-Aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	3
3	X EEO (Eff. 7-21-78) (Rev. 11-18-80)	4
4	Specific Equal Employment Opportunity Responsibilities Non Federal-Aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	14
5	Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-07)	19
6	Reserved.....	24
7	National Pollutant Discharge Elimination System Permit (Eff. 7-1-94) (Rev. 1-1-03)	25
8	Haul Road Stream Crossings, Other Temporary Stream Crossings, and In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98).....	26
9	Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	27
10	Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	30
11	Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	33
12	Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07).....	35
13	Hot-Mix Asphalt Surface Removal (Cold Milling) (Eff. 11-1-87) (Rev. 1-1-07)	39
14	Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-07)	41
15	PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	42
16	Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	44
17	Polymer Concrete (Eff. 8-1-95) (Rev. 3-1-05)	45
18	PVC Pipeliner (Eff. 4-1-04) (Rev. 1-1-07)	47
19	Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-07)	48
20	Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-97).....	49
21	Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-07)	53
22	Temporary Modular Glare Screen System (Eff. 1-1-00) (Rev. 1-1-07).....	55
23	Temporary Portable Bridge Traffic Signals (Eff. 8-1-03) (Rev. 1-1-07)	57
24	Work Zone Public Information Signs (Eff. 9-1-02) (Rev. 1-1-07).....	59
25	Night Time Inspection of Roadway Lighting (Eff. 5-1-96).....	60
26	English Substitution of Metric Bolts (Eff. 7-1-96).....	61
27	English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	62
28	Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01)	63
29	Quality Control of Concrete Mixtures at the Plant-Single A (Eff. 8-1-00) (Rev. 1-1-04).....	64
30	Quality Control of Concrete Mixtures at the Plant-Double A (Eff. 8-1-00) (Rev. 1-1-04)	70
31	X Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 1-1-07)	78
LRS 1	Reserved	91
LRS 2	<input checked="" type="checkbox"/> Furnished Excavation (Eff. 1-1-99) (Rev. 1-1-07)	92
LRS 3	<input checked="" type="checkbox"/> Work Zone Traffic Control (Eff. 1-1-99) (Rev. 1-1-07).....	93
LRS 4	<input checked="" type="checkbox"/> Flaggers in Work Zones (Eff. 1-1-99) (Rev. 1-1-07).....	94
LRS 5	<input type="checkbox"/> Contract Claims (Eff. 1-1-02) (Rev. 1-1-07).....	95
LRS 6	<input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals (Eff. 1-1-02).....	96
LRS 7	<input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals (Eff. 1-1-02) (Rev. 1-1-03).....	102
LRS 8	<input type="checkbox"/> Failure to Complete the Work on Time (Eff. 1-1-99)	108
LRS 9	<input type="checkbox"/> Bituminous Surface Treatments (Eff. 1-1-99)	109
LRS 10	<input type="checkbox"/> Reflective Sheeting Type C (Eff. 1-1-99) (Rev. 1-1-02)	110
LRS 11	<input type="checkbox"/> Employment Practices (Eff. 1-1-99)	111
LRS 12	<input type="checkbox"/> Wages of Employees on Public Works (Eff. 1-1-99) (Rev. 1-1-06).....	113
LRS 13	<input type="checkbox"/> Selection of Labor (Eff. 1-1-99)	114
LRS 14	<input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks (Eff. 1-1-04) (Rev. 1-1-07).....	115
LRS 15	<input type="checkbox"/> Partial Payments (Eff. 1-1-07)	118

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
LOCATION OF PROJECT	1
DESCRIPTION OF PROJECT	1
MAINTENANCE OF ROADWAYS	2
TRAFFIC CONTROL PLAN.....	2
STATUS OF UTILITIES	3
PROTECTION OF EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION	4
DISPOSAL OF SURPLUS MATERIAL	4
REMOVAL OF MISCELLANEOUS ITEMS	5
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	5
SEEDING	6
POROUS GRANULAR EMBANKMENT, SUBGRADE	8
EXCAVATION.....	9
PIPE CULVERTS	9
AGGREGATE BASE COURSE, TYPE B	9
TOPSOIL PLACEMENT	10
PAVEMENT REMOVAL.....	10
COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	10
PRE-CAST BLOCK RETAINING WALL.....	10
VEHICLE CONTROL BOLLARDS	15
EXPLORATION TRENCH (72 IN. TRENCH)	15

ELECTRICAL SERVICE INSTALLATION - LIGHTING16

LIGHT FIXTURE17

METAL POLES17

UNIT DUCT18

PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH, SPECIAL18

RELOCATE EXISTING FLARED END SECTION18

WATER MAIN SPECIAL PROVISIONS19

 ABANDON EXISTING WATER MAIN39

 WATER MAIN LINE STOP, 12"

 WATER MAIN LINE STOP, 16"

 VALVE VAULTS TO BE REMOVED

 DUCTILE IRON WATER MAIN 12"39

 DUCTILE IRON WATER MAIN 16"

 DUCTILE IRON WATER MAIN BEND, 45 DEGREE, 12 INCHES

 DUCTILE IRON WATER MAIN BEND, 90 DEGREE, 16 INCHES

 DUCTILE IRON WATER MAIN TEE, 16" x 12"

TELEVISION INSPECTION OF SEWER40

CITY OF NAPERVILLE STANDARD DETAILS

IEPA PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

BRIDGE SPECIAL PROVISIONS

BDE CHECKLIST AND ATTACHMENTS

INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS

<u>LR#</u>	<u>Title (Effective Date) (Revision Date)</u>	<u>Page #</u>
LR SD 12	"Slab Movement Detection Device" (Eff. 11/1/84) (Rev. 1/1/07).....	
LR SD 13	"Required Cold Milled Surface Texture" (Eff. 11/1/87) (Rev. 1/1/07).....	
LR SD 630	"Steel Plate Beam Guardrail" (Eff. 2/1/07). Developed to allow local agencies to continue to use 27" guardrail with 6 inch blockouts.	
LR SD 631	"Traffic Barrier Terminals" (Rev. 2/1/07). Developed to keep Traffic Barrier Terminals Type 1, 2 & 5A as an option for local agencies to use with 27" guardrail with 6 inch blockouts.	
LR SD 633	"Remove and Reerect Steel Plate Beam Guardrail" (Eff. 2/1/07). Developed to allow local agencies to replace 27" guardrail with 6 inch blockouts.	
LR 102	"Protests on Local Lettings" (Eff. 1/1/07). Developed to allow local agencies to adopt the department's interested party protest procedures outlined in Title 44 of the IL Administrative Code.	
LR 105	X "Cooperation with Utilities" (Eff 1/1/99) (Rev 1/1/07). Formerly issued as LRS 1 and was reissued as an LR Contract Special Provision based on industry concerns discussed at the Joint Coop.	75-77
LR 107-1	"Nationwide Permit No. 14" (Eff. 2/1/04) (Rev. 3/1/05). Developed to outline the necessary requirements to comply with No. 14 permits.	
LR 107-2	"Railroad Protective Liability Insurance for Local Lettings" (Eff. 3/1/05) (Rev 1/1/06). Developed to require insurance policies to be submitted to the letting agency rather than the department.	
LR 107-3	"Disadvantaged Business Enterprise Participation" (Eff. 1/1/07). Developed to require DBE utilization plans to be submitted to the local agency.	
LR 107-4	X "Insurance" (Eff. 2/1/07). Developed based on recommendations from IACE Policy Committee to ensure local agencies are indemnified when their projects are on the state letting.	77A
LR 108	"Combination Bids (Eff. 1/1/94) (Rev. 3/1/05). Developed to allow the revision of working days and calendar days. Revised to incorporate applicable portions of deleted Sections 102 & 103.	
LR 212	"Shaping Roadway" (Eff. 8/1/69) (Rev. 1/1/02).	
LR 355-1	"Asphalt Stabilized Base Course, Road Mix or Traveling Plant Mix" (Eff. 10/1/73) (Rev. 1/1/07)	
LR 355-2	"Asphalt Stabilized Base Course, Plant Mix" (Eff. 2/20/63) (Rev. 1/1/07)	
LR 400	"Bituminous Treated Earth Surface (Eff. 1/1/07). Developed since Section 401 was eliminated from the 2007 Standard Specifications.	
LR 402	"Salt Stabilized Surface Course" (Eff. 2/20/63) (Rev. 1/1/07)	
LR 403-2	Bituminous Hot Mix Sand Seal Coat" (Eff. 8/1/69) (Rev. 1/1/07)	
LR 420	"PCC Pavement (Special)" (Eff. 5/12/64) (Rev. 1/1/07). Developed to allow local agencies to construct quality PCC pavements for low volume roads.	
LR 442	"Bituminous Patching Mixtures for Maintenance Use" (Eff 1/1/04) (Rev. 2/1/07). Developed to reference approved bituminous patching mixtures.	
LR 451	"Crack Filling Bituminous Pavement with Fiber-Asphalt" (Eff. 10/1/91) (Rev. 1/1/07)	
LR 503-1	"Furnishing Class SI Concrete" (Eff. 10/1/73) (Rev. 1/1/02)	
LR 503-2	"Furnishing Class SI Concrete (Short Load)" (Eff. 1/1/89) (Rev. 1/1/02). Developed to allow a load charge to be added when short loads are expected during the contract.	
LR 542	"Pipe Culverts, Type _____ (Furnished)" (Eff. 9/1/64) (Rev. 1/1/07)	
LR 663	"Calcium Chloride Applied" (Eff. 6/1/58) (Rev. 1/1/07)	
LR 702	"Construction and Maintenance Signs" (Eff 1/1/04) (Rev 1/1/07). Developed to require florescent orange sheeting and a minimum sign size of 48" X 48" on construction and maintenance signs.	
LR 1004	"Coarse Aggregate for Bituminous Surface Treatment" (Eff. 1/1/02) (Rev 1/1/07). Developed to provide a coarser mix when aggregate producers have adjusted the CA-16 gradation according to the Aggregate Gradation Control System (AGCS) to a finer mix for Hot-Mix Asphalt.	
LR 1013	"Rock Salt (Sodium Chloride)" (Eff. 8/1/69) (Rev. 1/1/02)	
LR 1032-1	"Penetrating Emulsions" (Eff. 1/1/07) (Rev. 2/1/07). Developed to combine Penetrating Emulsified Asphalt and Penetrating Emulsified Prime into a single special provision.	
LR 1032-2	"Multigrade Cold Mix Asphalt" (Eff. 1/1/07) (Rev. 2/1/07). Developed to provide the material specification for Multigrade cold mix asphalt.	
LR 1102	"Road Mix or Traveling Plan Mix Equipment" (Eff. 1/1/07). Developed to replace road mix and traveling plant mix bituminous equipment that was eliminated from the Standard Specifications.	

BDE SPECIAL PROVISIONS
For the April 27 and June 15, 2007 Lettings

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

<u>File Name</u>	<u>Pg#</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80099		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80108		Asbestos Bearing Pad Removal	Nov. 1, 2003	
7254I		Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal (NOTE: This special provision was previously named "Asbestos Waterproofing Membrane and Asbestos Bituminous Concrete Surface Removal".)	June 1, 1989	Jan. 2, 2007
* 80173		Bituminous Materials Cost Adjustments	Nov. 2, 2006	Jan. 2, 2007
5026I		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
5048I		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
5049I		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
5053I		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	Jan. 1, 2007
80166	78	X Cement	Jan. 1, 2007	
* 80177		Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
80029	81	X Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 1, 2007
* 80178		Dowel Bars	April 1, 2007	
80167		Electrical Service Installation – Traffic Signals	Jan. 1, 2007	
* 80179		Engineer's Field Office Type A	April 1, 2007	
* 80175		Epoxy Pavement Markings	Jan. 1, 2007	
* 80180		Erosion and Sediment Control Deficiency Deduction	April 1, 2007	
* 80168	89	X Errata for the 2007 Standard Specifications	Jan. 1, 2007	April 1, 2007
80169		High Tension Cable Median Barrier	Jan. 1, 2007	
80142	91	X Hot-Mix Asphalt Equipment, Spreading and Finishing Machine (NOTE: This special provision was previously named "Bituminous Equipment, Spreading and Finishing Machine".)	Jan. 1, 2005	Jan. 1, 2007
* 80181		Hot-Mix Asphalt – Field Voids in the Mineral Aggregate	April 1, 2007	
* 80136		Hot-Mix Asphalt Mixture IL-4.75 (NOTE: This special provision was previously named "Superpave Bituminous Concrete Mixture IL-4.75".)	Nov. 1, 2004	April 1, 2007
80109		Impact Attenuators	Nov. 1, 2003	Jan. 1, 2007
80110		Impact Attenuators, Temporary	Nov. 1, 2003	Jan. 1, 2007
80045		Material Transfer Device	June 15, 1999	Jan. 1, 2007
80165		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2007
80082		Multilane Pavement Patching	Nov. 1, 2002	
80129		Notched Wedge Longitudinal Joint	July 1, 2004	Jan. 1, 2007
* 80182	92	X Notification of Reduced Width	April 1, 2007	
80069		Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2007
80022	93	X Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
80148		Planting Woody Plants	Jan. 1, 2006	
80134		Plastic Blockouts for Guardrail	Nov. 1, 2004	Jan. 1, 2007
80119		Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2007
80170	95	X Portland Cement Concrete Plants	Jan. 1, 2007	
80171		Precast Handling Holes	Jan. 1, 2007	
80015		Public Convenience and Safety	Jan. 1, 2000	
3426I		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80172	97	X Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	April 1, 2007

<u>File Name</u>	<u>Pg#</u>		<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80160			Reflective Crack Control Treatment	April 1, 2006	Jan. 1, 2007
80183	103	X	Reflective Sheeting on Channelizing Devices	April 1, 2007	
80151	104	X	Reinforcement Bars	Nov. 1, 2005	Jan. 1, 2007
80164			Removal and Disposal of Regulated Substances	Aug. 1, 2006	Jan. 1, 2007
80184			Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80131	106	X	Seeding (NOTE: This special provision was previously named "Seeding and Sodding".)	July 1, 2004	Jan. 1, 2007
80152	108	X	Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2007
80132	113	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
80127			Steel Cost Adjustment	April 2, 2004	April 1, 2007
80153			Steel Plate Beam Guardrail	Nov. 1, 2005	Jan. 1, 2007
80143	115	X	Subcontractor Mobilization Payments	April 2, 2005	
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
80087	116	X	Temporary Erosion Control	Nov. 1, 2002	Jan. 1, 2007
80176			Thermoplastic Pavement Markings	Jan. 1, 2007	
80161			Traffic Signal Grounding	April 1, 2006	Jan. 1, 2007
20338	117	X	Training Special Provisions	Oct. 15, 1975	
80154			Turf Reinforcement Mat	Nov. 1, 2005	Jan. 1, 2007
80185			Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80162			Uninterruptable Power Supply (UPS)	April 1, 2006	Jan. 1, 2007
80149			Variable Spaced Tining	Aug. 1, 2005	Jan. 1, 2007
80163			Water Blaster with Vacuum Recovery	April 1, 2006	Jan. 1, 2007
80071	120	X	Working Days	Jan. 1, 2002	

The following special provisions have been **deleted** from use:

80139 Portland Cement This special provision is now covered in a BMRP Policy Memorandum "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

80120 Precast, Prestressed Concrete Members This special provision is now in BMRP's "Manual for Fabrication of Precast Prestressed Concrete Products".

80145 Suspension of Slipformed Parapets This special provision is no longer required.

The following special provisions are either in the 2007 Standard Specifications or the 2007 Recurring Special Provisions:

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80156	Aggregate Shipping Tickets	Articles 1003.01(f), 1004.01(f) & 1005.01(d)	Jan. 1, 2006	
80128	Authority of Railroad Engineer	Article 105.02	July 1, 2004	
80065	Bituminous Base Course/Widening Superpave	Sections 355, 356, 1030 & 1102	April 1, 2002	Aug. 1, 2005
80050	Bituminous Concrete Surface Course	Article 406.13(b)	April 1, 2001	April 1, 2003
80066	Bridge Deck Construction	Sections 503, 1004, 1020 & 1103	April 1, 2002	April 1, 2004
80118	Butt Joints	Article 406.08	April 1, 2004	April 1, 2005
80031	Calcium Chloride Accelerator for Portland Cement Concrete Patching	Recurring # 28	Jan. 1, 2001	

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80077	Chair Supports	Article 421.04(a)	Nov. 1, 2002	Nov. 2, 2002
80051	Coarse Aggregate for Trench Backfill, Backfill and Bedding	Sections 208, 542, 550, 1003 & 1004	April 1, 2001	Nov. 1, 2003
80094	Concrete Admixtures	Article 1020.05(b) & Section 1021	Jan. 1, 2003	July 1, 2004
80112	Concrete Barrier	Section 637	Jan. 1, 2004	April 2, 2004
80102	Corrugated Metal Pipe Culverts	Articles 542.04(d), 1006.01(a)(4) & 1006.03(d)	Aug. 1, 2003	July 1, 2004
80114	Curing and Protection of Concrete Construction	Sections 503, 1020 & 1022	Jan. 1, 2004	Nov. 1, 2005
80146	Detectable Warnings	Section 424	Aug. 1, 2005	
80144	Elastomeric Bearings	Section 1083	April 1, 2005	
31578	Epoxy Coating on Reinforcement	Sections 420, 483 & 606	April 1, 1997	Jan. 1, 2003
80041	Epoxy Pavement Marking	Article 1095.04	Jan. 1, 2001	Aug. 1, 2003
80055	Erosion and Sediment Control Deficiency Deduction	Article 105.03(a)	Aug. 1, 2001	Nov. 1, 2001
80103	Expansion Joints	Article 420.05(d)	Aug. 1, 2003	
80101	Flagger Vests	Article 701.13	April 1, 2003	Jan. 1, 2006
80079	Freeze-Thaw Rating	Article 1004.02(f)	Nov. 1, 2002	
80072	Furnished Excavation	Section 204	Aug. 1, 2002	Nov. 1, 2004
80054	Hand Vibrator	Article 1103.17(a)	Nov. 1, 2003	
80147	Illuminated Sign	Sections 801, 891 & 1084	Aug. 1, 2005	
80104	Inlet Filters	Section 280 & Article 1081.15(h)	Aug. 1, 2003	
80080	Insertion Lining of Pipe Culverts	Section 543 & Article 1040.04	Nov. 1, 2002	Aug. 1, 2003
80150	Light Emitting Diode (LED) Pedestrian Signal Head	Sections 801, 881, & 1078	Nov. 1, 2005	April 1, 2006
80067	Light Emitting Diode (LED) Signal Head	Sections 801, 880 & 1078	April 1, 2002	Nov. 1, 2005
80081	Lime Gradation Requirements	Article 1012.03	Nov. 1, 2002	
80133	Lime Stabilized Soil Mixture	Section 310	Nov. 1, 2004	April 1, 2006
80158	Manholes	Article 1042.10	April 1, 2006	
80137	Minimum Lane Width with Lane Closure	Article 701.06	Jan. 1, 2005	
80138	Mulching Seeded Areas	Section 251 & Article 1081.06(a)(4)	Jan. 1, 2005	
80116	Partial Payments	Article 109.07	Sept. 1, 2003	
80013	Pavement and Shoulder Resurfacing	Recurring # 14	Feb. 1, 2000	July 1, 2004
53600	Pavement Thickness Determination for Payment	Articles 407.03, 407.10, 420.03, 420.15 & 421.04	April 1, 1999	Jan. 1, 2004
80155	Payrolls and Payroll Records	Recurring #1 & #5	Aug. 10, 2005	
80130	Personal Protective Equipment	Article 701.12	July 1, 2004	
80073	Polymer Modified Emulsified Asphalt	Article 1032.06	Nov. 1, 2002	
80124	Portable Changeable Message Signs	Articles 701.15(j), 701.20(h) & 1106.02(j)	Nov. 1, 1993	April 2, 2004
80083	Portland Cement Concrete	Articles 1103.01 & 1103.02	Nov. 1, 2002	
80036	Portland Cement Concrete Patching	Sections 442, 701, 1013 & 1020	Jan. 1, 2001	Jan. 1, 2004
419	Precast Concrete Products	Sections 540, 1020 & 1042	July 1, 1999	Nov. 1, 2004
80084	Preformed Recycled Rubber Joint Filler	Articles 503.02, 637.02 & 1051.10	Nov. 1, 2002	
80121	PVC Pipeliner	Recurring # 18	April 1, 2004	April 1, 2005
80159	Railroad Flaggers	Article 107.12	April 1, 2006	
80122	Railroad, Full-Actuated Controller and Cabinet	Articles 857.04, 1073.01(c)(2) & 1074.03(a)(5)e.	April 1, 2004	
80105	Raised Reflective Pavement Markers (Bridge)	Articles 781.03(a), 781.05 & 1096.01(b)	Aug. 1, 2003	

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80011	RAP for Use in Bituminous Concrete Mixtures	Sections 1030 & 1031	Jan. 1, 2000	April 1, 2002
80032	Remove and Re-Erect Steel Plate Beam Guardrail and Traffic Barrier Terminals	Section 633	Jan. 1, 2001	Jan. 1, 2005
80085	Sealing Abandoned Water Wells	Section 672	Nov. 1, 2002	
80096	Shoulder Rumble Strips	Section 642	Jan. 1, 2003	
80140	Shoulder Stabilization at Guardrail	Article 630.06	Jan. 1, 2005	
80135	Soil Modification	Section 302	Nov. 1, 2004	April 1, 2006
80070	Stabilized Subbase and Bituminous Shoulders Superpave	Sections 312, 482, 1030 & 1102	April 1, 2002	Aug. 1, 2005
80086	Subgrade Preparation	Section 301	Nov. 1, 2002	
80010	Superpave Bituminous Concrete Mixtures	Sections 406, 407 & 1030	Jan. 1, 2000	April 1, 2004
80039	Superpave Bituminous Concrete Mixtures (Low ESAL)	Sections 406, 407 & 1030	Jan. 1, 2001	April 1, 2004
80092	Temporary Concrete Barrier	Section 704	Oct. 1, 2002	Nov. 1, 2003
80008	Temporary Module Glare Screen System	Recurring # 22	Jan. 1, 2000	
80106	Temporary Portable Bridge Traffic Signals	Recurring # 23	Aug. 1, 2003	
80098	Traffic Barrier Terminals	Section 631	Jan. 1, 2003	
57291	Traffic Control Deficiency Deduction	Article 105.03(b)	April 1, 1992	Jan. 1, 2005
80107	Transient Voltage Surge Suppression	Article 1074.03(a)(4)	Aug. 1, 2003	
80123	Truck Bed Release Agent	Article 1030.08	April 1, 2004	
80048	Weight Control Deficiency Deduction	Article 109.01	April 1, 2001	Aug. 1, 2002
80090	Work Zone Public Information Signs	Recurring # 24	Sept. 1, 2002	Jan. 1, 2005
80125	Work Zone Speed Limit Signs	Article 701.14(b)	April 2, 2004	Jan. 1, 2006
80126	Work Zone Traffic Control	Articles 701.19 & 701.20	April 2, 2004	Nov. 1, 2005
80097	Work Zone Traffic Control Devices	Section 701 & Article 1106.02	Jan. 1, 2003	Nov. 1, 2004

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

- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

STATE OF ILLINOIS
SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation for bids; and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of

Illinois Route 59 Pedestrian Bridge
Section: 05-00130-00-BR
Project No.: BRM-8003 (642)
Will County

And in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT:

Proposed bike trail and pedestrian bridge will connect the existing Virgil Gilman Trail, east and west of Illinois Route 59 in Naperville.

DESCRIPTION OF PROJECT:

This project consists of the construction of approximately 2,038 feet of 10' wide bituminous bike trail, which will include a pedestrian bridge over Illinois Route 59. The project includes the relocation of an existing service drive. Also included in this work is grading, seeding, sodding, installation of culverts, installation of signs, construction of a precast block retaining wall along with all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

TRAFFIC CONTROL PLAN

Effective: September 30, 1985

Revised: October 1, 1995

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

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

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

STANDARD:

701101-01, 701106-01, 701601-04, 702001-06

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
Commonwealth Edison 227 West Monroe Street PO Box 767 Chicago, IL 60690-076 Attn: James Torres, Real Estate 630.424.5704	No conflicts observed.		
Nicor Gas Company 1844 Ferry Road Naperville, IL 60563-9600 Scott Stogsdill Senior Utility Consultant 630.983.8676	No conflicts observed.		
City of Naperville 400 South Eagle Street Naperville, IL 60566-7020 Attn: Jana Bryant 630.305.5981	16-inch water main to be re-routed. at Sta. 114 in order to avoid conflict with bridge pier	Bike trail Sta. 114 east of Route 59: 16-in. water main running along 59.	Work completed as part of this contract.
AT&T 162 S. York Road Elmhurst, IL 60126 Attn: Mr. Mike Carney 630.941.4246	No conflicts observed.		
Comcast Cable Communications, Inc. ROW Department 688 Industrial Drive Elmhurst IL 60126 Attn: Ms. Martha Gieras 630.437.2212	No conflicts observed.		

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

PROTECTION OF EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION

Unless otherwise noted on the 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 Plans are approximate. Prior to commencing work, the Contractor, at his own expense, shall determine the exact locations of existing structures which are within the proposed construction site.

All drainage structures are to be kept free of any debris resulting from construction operations. All work and material necessary to prevent accumulation of debris in the drainage structures will be considered as incidental to the Contract. Any accumulation of debris in the drainage structures 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 drainage structure is called for on the Plans, 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 603 and Article 104.02, respectively, of the "Standard Specifications," unless otherwise noted on the Plans or in the Special Provisions.

The Contractor shall take the necessary precautions when working near or above existing sewers in order to protect these pipes during construction from any damage resulting from his operations. All work and material necessary to replace existing sewers damaged because of noncompliance with this provision shall be as directed by the Engineer in accordance with Section 550 of the "Standard Specifications" and at the Contractor's own expense, and no extra compensation will be allowed.

During construction, if the Contractor encounters or otherwise becomes aware of any sewers or underdrains within the R.O.W. other than those shown on the Plans, he shall so inform the Engineer, who shall direct the work necessary to maintain the facilities in service and to protect them from damage during construction. Any sewers or underdrains to remain within the R.O.W. that are deemed necessary to be replaced by the Engineer shall be replaced or otherwise made to conform to the type requirements of Section 550 of the "Standard Specifications", and the work involved therein will be paid for as specified in Article 109.04 thereof.

DISPOSAL OF SURPLUS MATERIAL

The Contractor is prohibited from burning any material within or adjacent to the improvement. All excess or waste material shall be hauled away from the site of the improvement by the Contractor and deposited at locations provided by him and approved by the Engineer.

No extra compensation will be allowed the Contractor for any expense incurred by complying with the requirements of this Special Provision.

REMOVAL OF MISCELLANEOUS ITEMS

Regarding the removal and disposal of any existing fences, gates, signs (except traffic signs) concrete, brush or other miscellaneous items which may interfere with the proposed construction, and which are not paid for separately, the Contractor shall, with the approval of the Engineer, remove and dispose of these items outside the limits of the right-of-way at locations provided by him, and this work shall be considered as incidental to the Contract. Dump locations should not be harmful environmentally or illegal – the locations should be approved by the Engineer.

Any existing features and appurtenances to remain which are damaged or removed by the Contractor shall be repaired or replaced by the Contractor at his expense.

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

Description: This work shall be performed, measured, and paid for in accordance with Section 202 of the Standard Specifications, except as modified herein.

Removal and Disposal of Unsuitable Material shall not include sidewalk removal or curb and gutter removal or any other items to be removed under separate pay items. Any paved surface shall be removed in a manner so as to maintain a neat line at the edge of the remaining surface to be left in place. A neat edge shall be defined as an approximately vertical face along the surface remaining in place and shall not deviate more than one inch from the line established by the Engineer. The neat edge shall be obtained by cutting with mechanical means other than jackhammers. Full depth saw cutting, if required, shall be included in the cost of the item being removed and will not be measured for payment.

Clearing the proposed path of all obstructions such as existing metal bollards and foundations, planters, shrubs, bushes, and other materials as designated in Article 201.01 shall be incidental to these items.

Excess unsuitable material shall be disposed of by the Contractor.

Method of Measurement: Removal and disposal of unsuitable material will be measured for payment in place and the volume in cubic yards computed by the method of average end areas, in accordance with Article 202.07(b) of the Standard Specifications.

Basis of Payment: Removal and disposal of unsuitable material will be paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL which price shall include any sawcutting, in accordance with Article 202.08 of the Standard Specifications.

SEEDING

This work shall conform to Section 250 of the IDOT Standard Specifications except for those items as amended below:

PART ONE – GENERAL

1. Description. Any turf area that is disturbed to a degree that it is deemed irreparable will be seeded with a restoration mix. Work Included; Seeding completion, mulching, and erosion control shall be done in a professional manner and in accordance with these specifications. It shall be the responsibility of the Contractor to complete the Work in order to produce a high quality, thick turf free of weeds, debris, and bare patches.
2. Prior Work. Before seeding and mulching begins, the Contractor shall be responsible for ensuring that each previous tradesperson or contractor has fulfilled preparatory requirements (grading, compaction, debris removal, etc.).

PART TWO – PRODUCTS

1. Seed. Areas will be seeded at an application rate as specified below. The pure live grass seed mixture shall meet the requirements of each class seed mixture as specified herein. Each bag shall be tagged or labeled as required by the Illinois Seed Law. The label shall bear the dealer's guarantee of mixture and year grown, the percentages of purity and germination, and date of test. All seed shall have a date of test within six months of the date of sowing. Seed, which has become wet, moldy, or otherwise damaged will not be acceptable. Prior to application, the Engineer must approve seed mix in the bags.
 - i. A) Tri-Blend Rye Seed Mix
Apply at 129 lbs. per acre, as shown on the plans.
 - 34% Calypso II
 - 33% Accent
 - 33% A.P.M.
 - B) Tri-Tall Fescue Blend Seed Mix
Apply at 301 lbs. per acre, as shown on the plans.
 - 34% Leprechaun Fine Blade Turf Type Tall Fescue
 - 33% Chieftain II Fine Blade Turf Type Tall Fescue
 - 33% Guardian Fine Blade Turf Type Tall Fescue

PART THREE – EXECUTION

1. Planting Dates. The Contractor shall apply seed and mulch only during the following time intervals: For spring seeding between April 15th and June 1st. For fall seeding between August 15 and October 1. Variation in seeding mulching dates will not be allowed without the written permission of the owner. Seeding and mulching shall be performed only when weather and soil conditions are favorable for such operations. The Engineer shall approve site prior to beginning seeding and mulching.
2. Mulching Seeded Areas. This section shall comply with Section 251 Method 3.
3. Fertilizer. This section shall comply with Section 250.

4. Protection. All seeded areas shown on the drawings shall be protected against all types of damage, including soil erosion, from the time work is started until the date of acceptance by the Engineer. The subsequent moving of heavy equipment or materials over newly seeded areas shall be done on planks, if necessary. Contractor shall be responsible for repairing any and all damaged areas in accordance with the above specifications, regardless of the cause of the damage. The area shall be protected against traffic or other use, by placing "NEWLY SEEDED" signs or other appropriate approved means until all seeding and mulching work under Contract is completed and accepted.
5. Mowing. All seeded areas shall be mowed with mowing equipment approved by the Engineer. When amount of grass is heavy, cut grass shall be removed to prevent destruction of underlying turf. If weeds or other undesirable vegetation threatens to smother planted species, the Engineer shall require mowing when weeds reach a height of more than 5"; or in case of exceeding rank growths, at the direction of the Engineer, the weeds shall be uprooted, raked and removed from the area. No more than 1/3 of the total growth of grass shall be cut off at one time and only when plants are dry and soil is not wet.
6. Inspection and Acceptance
 - i. Only when the Engineer has determined by inspection that turf is thick and vigorous and that bare spots do not constitute more than 2% of the total seeded area and that no bare spots exceed 1 square foot shall be specifications be considered to have been completed as required in the contract. Such inspection for spring seeding is to occur not less than 45 days nor more than 60 days after seeding. Inspections of areas seeded after September 1st will occur the following spring.
 - ii. Maintenance and guarantee of all seeded areas, which shall include all watering, weed control, mowing, and fertilization necessary, is the responsibility of the Contractor until a thick, vigorous and weed free covering has been produced over all areas designated to be seeded and shall include three (3) cuttings. In the event the grass does not properly develop in certain areas, these areas are to be reseeded until a dense growth of grass is established and acceptable to the Engineer.
 - iii. After final inspection and acceptance of the seeded areas a notice of satisfactory final inspections will be sent to the contractor; which will then allow submittal of an invoice for final payment for seeding mulching.
7. Basis of Payment. The work will be paid for a contract unit price per acre of SEEDING of the type specified which price shall include all labor, equipment and materials necessary to complete the work as specified. 60% of the contract unit price is payable upon placement of the seed as plans defined. 40% of the contract unit price will be payable upon successfully meeting the performance requirement in sections 3.5 of this special provision. If the Contractor fails to comply with the requirements for satisfactory performance, the Owner has the right to make other arrangements, as it may deem necessary to correct the deficiency.

POROUS GRANULAR EMBANKMENT, SUBGRADE

Description. This item shall consist of furnishing, placing and compacting gravel or crushed stone in accordance with the plans and details. The following gradation should be used:

1. Crushed Stone, Crushed Blast Furnace Slag, and Crushed Concrete

Sieve Size	Percent Passing
* 6" (150 mm)	97 + 3
* 4" (100 mm)	90 + 10
2" (50 mm)	45 + 25
#200 (75 mm)	5 + 5

2. Gravel, Crushed Gravel and Pit Run Gravel

Sieve Size	Percent Passing
* 6" (150 mm)	97 + 3
* 4" (100 mm)	90 + 10
2" (50 mm)	55 + 25
#4 (4.75 mm)	30 + 20
#200 (75 mm)	5 + 5

- * For undercuts greater than 18" (450 mm) the percent passing the 6" (150 mm) sieve may be 90 + 10 and the 4" (100 mm) sieve requirement eliminated.

Or, upon approval of the Engineer, aggregate with a gradation of CA-1 or CA-3 may be used.

The full depth of the subgrade undercut should occur at the limits determined by the Engineer. A transition slope to the full depth of undercut shall be made outside of the undercut limits and shall consist of a taper of one foot longitudinal distance per one inch depth (1:12 V:H) of undercut below the proposed subgrade elevation.

This material is to be placed in lifts not exceeding 12 in.(300 mm) and a vibratory roller is to be used to achieve compaction. The Engineer will determine whether adequate keying or aggregate interlock has been achieved.

Excavation as shown on the plans and as directed by the Engineer required for placement of this material will be paid for per Cubic Yard (Cubic Meter) for Earth Excavation. The disposal of excavated unsuitable material that is replaced by Porous Granular Embankment, Special shall be done in accordance with Section 202.03 of the Standard Specifications.

Basis of Payment. This item shall be paid for at the contract unit price per cubic yard in-place for POROUS GRANULAR EMBANKMENT, SUBGRADE which shall include all labor, equipment and material.

EXCAVATION

This work shall be performed, measured, and paid for in accordance with Section 202 of the Standard Specifications, except as modified herein.

Earth excavation shall not include sidewalk removal or curb and gutter removal or any other items to be removed under separate pay items. Any paved surface shall be removed in a manner so as to maintain a neat line at the edge of the remaining surface to be left in place. A neat edge shall be defined as an approximately vertical face along the surface remaining in place and shall not deviate more than one inch from the line established by the Engineer. The neat edge shall be obtained by cutting with mechanical means other than jackhammers. Full depth saw cutting, if required, shall be included in the cost of the item being removed and will not be measured for payment.

Clearing the proposed path of all obstructions such as existing metal bollards and foundations, planters, shrubs, bushes, and other materials as designated in Article 201.01 shall be incidental to this item.

Unsuitable material shall be removed by the Contractor and used as embankment where shown on the plans. Excess unsuitable material shall be disposed of by the Contractor.

This item shall be measured as specified in Article 202.08 and paid for at the contract unit price per cubic yard for EARTH EXCAVATION and REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL which price shall include any sawcutting.

PIPE CULVERTS

When installing pipe culverts and end sections all necessary grading to provide positive drainage to and from the culverts shall be considered incidental to this item. Restoration of the disturbed areas shall be paid for at the various line items for that work.

Trench backfill, properly compacted in accordance with the Standard Specifications shall be used as backfill where the pipe crosses the path.

AGGREGATE BASE COURSE, TYPE B

General: This work shall conform to applicable Articles of Section 351, of the Standard Specifications except a spreader shall not be required on the trail sections and the addition of moisture at the point of production of the aggregate base may be required to obtain maximum density of the aggregate base. This shall be at the direction of the Engineer. The Aggregate Base Course, Type B shall be compacted as required by the Engineer. No extra payment shall be due the Contractor for complying with the aforementioned requirements.

The Aggregate Base Course, Type B, shall be a 100% crushed stone CA-6 gradation as per Article 1004.01 of the Standard Specifications.

Method of Measurement and Basis for Payment: The Aggregate Base Course, Type B shall be measured for payment by the square yard. Payment shall be made at the contract unit price for "AGGREGATE BASE COURSE, TYPE B", per square yard of material satisfactorily installed and accepted. This shall be the only payment to the Contractor for this work and no further compensation shall be due.

TOPSOIL PLACEMENT

The 6 inches of topsoil to be placed within the 2 foot shoulder adjacent to the proposed trails and parking lot must be pulverized prior to placement. Topsoil areas shall be inspected and approved by the Engineer prior to the application of the specified seed mix.

PAVEMENT REMOVAL

The length of removal shall equal the width of the trench plus two feet (one foot on either side of the trench). The pavement shall be sawcut full depth to provide a clean edge.

The thickness of the proposed pavement replacement shall match the existing pavement thickness. Pavement replacement, however, shall consist of a minimum of 1 ½" bituminous surface course (Bituminous Concrete Surface Course, Superpave, Mix. C, N50) and 2 ½" bituminous binder course (Bituminous Concrete Binder Course, Superpave, IL-19.0, N50), to be paid for separately.

One lane of traffic must be maintained at all times. No lane closures shall be permitted overnight.

This work shall be paid for at the contract unit price per square yard for PAVEMENT REMOVAL, which price shall be payment in full for furnishing all labor, material and equipment for necessary as herein specified.

COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT

All paved surfaces adjacent to the curbs and curb and gutters to be removed shall be saw cut to prevent damage to the pavement during removal operations. Any bituminous surface replacement needed to match existing grades shall be incidental to this item. A depressed curb and gutter shall be installed as shown on the details and shall conform to the dimensions of the existing curb and gutter. This work shall be paid for at the contract unit per foot for COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT.

PRECAST BLOCK RETAINING WALL

Description. This work shall consist of furnishing the design computations, shop plans, materials, equipment and labor to construct a Segmental Concrete Block Retaining Wall with a maximum height of (7 ft) as measured from the top of block elevation to the finished grade line at the wall face.

General. The wall shall consist of a leveling pad, pre-cast concrete blocks, select granular backfill and, if required by the design, soil reinforcement. The materials, fabrication, and construction of the wall components are subject to approval by the Engineer. The Engineer reserves the right to obtain random samples for material testing. The wall shall be designed and constructed according to the lines, grades, and dimensions shown on the contract plans and approved shop plans.

Submittals. The wall supplier shall submit design computations and shop plans to the Engineer. The shop plans shall be sealed by an Illinois Licensed Professional Engineer and shall include all details, dimensions, quantities, and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

(a) Plan, elevation, and cross section sheet(s) for each wall showing the following:

- (1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select granular backfill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.
 - (2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.
 - (3) Typical cross section(s) showing the limits of the select granular backfill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.
 - (4) All general notes required for constructing the wall.
- (b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall be approximately 450 mm (1.5 feet) below the finished grade line at the wall face; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 152 mm (6 in.)
- (c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans. All cap blocks shall be secured to the top of the standard block units with glue approved by the manufacturer.

- (d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.
- (e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a "split rock face" pattern, and Buff in color unless otherwise stated on the plans.
- (f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.
- (g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

The initial submittal shall include 3 sets of prints of the detail shop plans and 1 set of calculations. One set of plans will be returned to the Contractor with any corrections indicated. After approval, the Contractor shall furnish the Engineer with 8 sets of corrected plan prints for distribution. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer.

Materials. The materials shall meet the following requirements:

- (a) Pre-cast Concrete Block: The block proposed for use shall be produced according to the Department's Policy Memorandum "Quality Control/ Quality Assurance Program for Precast Concrete Products", and shall satisfy the following:

Conform to the requirements of ASTM C 1372 except as follows:

1. Fly ash shall be according to Article 1010.03.
 2. Ground granulated blast-furnace slag shall be according to AASHTO M 302.
 3. Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation. Chert gravel may be used based on past in-service satisfactory performance, in the environment in which the product was used.
 4. Water shall be according to Section 1002.
 5. Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.
- (b) Select Granular Backfill: The material behind the blocks and above a 1:1 slope extending upward from either the back of the bottom block or soil reinforcement (whichever is greater) shall

consist of either a coarse aggregate according to Article 1004.06(a), or a fine aggregate according to the first sentence of Article 1003.04(a). The aggregate used shall also meet the following:

- Coarse Aggregate Gradation CA 6 thru CA 16 (Article 1004.01(c))
- Fine Aggregate Gradation FA 1, FA 2, or FA 20 (Article 1003.01(c))
- Coarse Aggregate Quality Minimum Class C (Article 1004.01(b))
- Fine Aggregate Quality Minimum Class C (Article 1003.01(b))
- Internal Friction Angle 34° minimum (AASHTO T 236)
- pH 4.5 to 9 (AASHTO T 289)

When a fine aggregate is selected, the rear of all block joints shall be covered by a non-woven needle punch geotextile filter material according to Article 1080.05 of the Standard Specifications and shall have a minimum permeability according to ASTM D 4491 of 0.008 cm/sec. All fabric overlaps shall be 150 mm (6 inches) and non-sewn. As an alternative to the geotextile, a coarse aggregate shall be placed against the back face of the blocks to create a minimum 300 mm (12 inches) wide continuous gradation filter to prevent the select fill material from passing through the block joints.

- (c) Leveling pad: The material shall be compacted coarse aggregate gradation CA 6 or CA 10 according to Articles 1004.04, (a) and (b).
- (d) Soil Reinforcement: If soil reinforcement is required by the approved design, the Contractor shall submit a manufacturer's certification for the soil reinforcement properties which equals or exceeds those required in the design computations. The soil reinforcement shall be manufactured from high density polyethylene (HDPE) uniaxial or polypropylene biaxial resins or high tenacity polyester fibers with a PVC coating, stored between -29 and 60° C (-20 and 140° F). The following standards shall be used in determining and demonstrating the soil reinforcement capacities:

ASTM D-638 Test Method for Tensile Properties of Plastic
ASTM D-1248 Specification for Polyethylene Plastics Molding and Extrusion Materials
ASTM D-4218 Test Method for Carbon Black Content in Polyethylene Compounds
ASTM D-5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics
GG1-Standard Test Method for Geogrid Rib Tensile Strength
GG2-Standard Test Method for Geogrid Junction Strength
GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid
GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

Design Criteria. The design shall be according to AASHTO Specifications and commentaries for Earth Retaining Walls or FHWA Publication No. HI-95-038, SA-96-071 and SA-96-072. The wall supplier shall be responsible for all internal stability aspects of the wall design.

Internal stability design shall insure that adequate factors of safety against overturning and sliding are present at each level of block. If required by design, soil reinforcement shall be utilized and the loading at the block/soil reinforcement connection as well as the failure surface must be indicated.

The calculations to determine the allowable load of the soil reinforcement and the factor of safety against pullout shall also be included. The analysis of settlement, bearing capacity, and overall slope stability are the responsibility of the Department.

External loads such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements, or other items shall be accounted for in the internal stability design of the wall.

Construction Requirements. The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include all costs related to this technical assistance in the unit price bid for this item.

The foundation material for the leveling pad and select granular backfill volume shall be graded to the design elevation and compacted according to Article 205.06, except the minimum required compaction shall be 95% of the standard laboratory density. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

The select granular backfill lift placement shall closely follow the erection of each course of blocks. All aggregate shall be swept from the top of the block prior to placing the next block lift. If soil reinforcement is used, the select granular backfill material shall be leveled and compacted before placing and attaching the soil reinforcement to the blocks. The soil reinforcement shall be pulled taut, staked in place, and select fill placed from the rear face of the blocks outward. The lift thickness shall be the lesser of 255 mm (10 inches) loose measurement or the proposed block height.

The select granular backfill shall be compacted according to Article 205.06, except the minimum required compaction shall be 95% of the standard laboratory density. Compaction shall be achieved using a minimum of 3 passes of a lightweight mechanical tamper, roller, or vibratory system. The top 300 mm (12 inches) of backfill shall be a cohesive, impervious material capable of supporting vegetation, unless other details are specified on the plans.

The blocks shall be maintained in position as successive lifts are compacted along the rear face of the block. Vertical, horizontal, and rotational alignment tolerances shall not exceed 12 mm (1/2 inch) when measured along a 3 m (10 ft.) straight edge.

Method of Measurement Precast Block Retaining Wall will be measured by the square foot of wall face from the top of block line to the theoretical top of the leveling pad for the length of the wall in a vertical plane, as shown on the contract plans.

Basis of Payment This work will be paid for at the contract unit price per square foot for PRECAST BLOCK RETAINING WALL, which price shall include all labor, materials, including all necessary select backfill, porous granular backfill, 4" diameter pipe under-drain, shoring or bracing required to complete the work as shown or specified.

VEHICLE CONTROL BOLLARDS

Bollards shall be a single post steel tip-down type, low profile, heavy-duty, hinged bollards manufactured by PARS Direct, model LPHDHP, or approved equal. The bollard shall be constructed of ASTM grade A36 TS 6" x 4" x 3/8" rectangular steel tube with end plates welded to top and bottom. All corners shall have beveled edges. The finished bollard shall stand to a 30" height, and shall provide for a 4" clearance height when tipped down. The base shall be constructed of ASTM grade A36 steel, with a base plate dimension approximately 12" x 12", and shall have beveled edges on all steel.

The steel base shall be mounted to an 18" diameter concrete pier extending a minimum of 42" below finished grade. The pier shall be reinforced with a minimum four 15" diameter #3 reinforcing bar hoops, and four vertical #4 longitudinal reinforcing bars and shown on the plan details. 3/4" diameter by 12" long "L" hook anchor bolts meeting ASTM – A36 requirements shall be provided in the top of pier to match the steel base of the Bollard Assembly. All mounting hardware and anchor bolts shall be galvanized steel.

Hinge pins for the tip-down bollard shall be 3/4" diameter Hex Head bolts, stainless steel with a 13/32" diameter hole for a lock. The hinge pin shall be secured with a 3/4" stainless steel nut

All exposed steel shall be shop primed and painted. Prior to painting, all scale, welding slag, and rust shall be thoroughly removed. Primer and paint shall be applied to provide a durable weather resistant finish. Finish color shall be DuPont Yellow, or approved equal.

This work will be measured and paid for at the contract unit price per Each for VEHICLE CONTROL BOLLARDS, which price shall include all excavation, furnishing all equipment, materials and labor to construct the bike path bollards complete in place at locations indicated in the plans and as directed by the Engineer..

EXPLORATION TRENCH (72 IN. DEPTH)

Description: This item shall consist of constructing a trench at the locations shown on the plans or as directed by the Engineer, for the purpose of locating and/or confirming existing utility lines within the construction limits of the proposed improvement.

The trench shall be of various depths, but no more than 72 inches in depth, measured from the existing ground elevation. The width of the trench shall be sufficient to allow proper investigation of the entire trench.

The Contractor shall familiarize himself with the locations of all underground utilities or facilities as outlined in Article 105.07 of the Standard Specifications and shall save such facilities from damage.

After the trench has been inspected by the Engineer, the trench shall be backfilled in accordance with Article 550.07 of the Standard Specifications. Any excess excavated material shall be disposed of in accordance with Article 202.03 of the Standard Specifications, and the area adjacent to the trench shall be shaped and trimmed in accordance with Section 212 of the Standard Specifications.

It is the intent of this provision to limit the use of this item to particular locations where the Engineer knows, or has sufficient evidence and reason to believe, the location of a given utility line.

Method of Measurement: A normal amount of Exploration Trench (72 IN. DEPTH) has been shown in the Summary of Quantities to establish a unit price only, and payment shall be based on actual trench length explored, measured in place, without a change in unit price because of adjustment in plan quantities.

Basis of Payment: This work will be paid at the contract unit price per foot for "EXPLORATION TRENCH (72 IN. DEPTH)" and no extra compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor in performing the work.

ELECTRICAL SERVICE INSTALLATION - LIGHTING

This work shall conform to Section 804 of the IDOT standard specifications except for those items as amended below.

Description:

This work shall consist of all material and labor required to install an underground service from the City of Naperville Utilities transformer. The new service shall be rated for 30 amps, single phase, 3 wire 240/120 volts.

Installation:

The Contractor will comply with the requirements of the City of Naperville Utilities for this service connection. The cables between the City of Naperville Utilities transformer and the control center shall be installed by the Contractor to the satisfaction of the Engineer before connection to the transformer is made by City of Naperville Utilities. The cost of trenching and backfilling the service shall be incidental to the ELECTRICAL SERVICE INSTALLATION.

Materials:

Provide NEMA 3R meter socket compatible with the City of Naperville utilities.

Provide a NEMA 3R raintight service disconnect that shall lock in either the "On" or "Off" positions. The Disconnect shall be supplied with a 30 amp two pole breaker for protection of electrical circuits.

Basis of Payment:

This work shall be constructed in accordance with Sections 804 of the Standard Specifications, and paid for at the contract unit price each for ELECTRIC SERVICE INSTALLATION, which price shall be payment in full for furnishing and installing all materials, labor, equipment, and incidentals necessary to complete the work. Any charges by the Utility Company to provide electrical service to the Service Installation will be paid for in accordance with Article 109.05.

This work shall conform to Section 804 of the IDOT standard specifications except for those items as amended below.

LIGHT FIXTURE

This work shall conform to Section 821 – ROADWAY LUMINAIRES of the IDOT standard specifications except for those items as amended below.

Materials:

The luminaries shall a horizontal mount shoe box type with a natural aluminum anodized finish. The lamp shall be 250 watt high pressure sodium, 240 volts. The distributions shall be type II.

General Installation:

The lighting unit shall be set level plumb on the foundation without the use of shims, grout or any other leveling devices under the pole base.

The unit duct shall be re-laid and cut as necessary to provide the connection to the pole wiring.

This item shall be coordinated with the applicable luminaries (with pole wire and fusing), foundation and anchor bolts.

The luminaries shall be carefully installed in accordance with the luminaries manufacturer's recommendations and in accordance with the design requirements represented on the plans.

The luminaries should not be installed before they are fully approved. Where independent testing is required, full approval is not attained until complete test results; demonstrating compliance with specified requirements, have been reviewed and accepted by the Engineer. No payment shall be made for luminaries installed without full approval.

Basis of Payment:

This work shall be constructed in accordance with Section 821 of the Standard Specifications, and paid for at the contract unit price each for LUMINAIRE of the type and wattage indicated.

METAL POLES

This work shall conform to Section 830 – LIGHT POLES of the IDOT standard specifications except for those items as amended below.

Materials:

The Pole shall be 30 foot square aluminum pole with natural aluminum anodized finish.

Installation:

Poles shall not be installed until luminaries are available for installation at the same time the poles are installed. Poles shall not be installed and left standing without a coordinated installation of the luminaries.

Basis of Payment:

This work shall be constructed in accordance with Section 830 of the Standard Specifications, and paid for at the contract unit price each for LIGHT POLE of the type and mounting height specified.

UNIT DUCT

This work shall conform to Section 816 – UNIT DUCT of the IDOT standard specifications except for those items as amended below.

Installation:

The unit duct shall be trenched and backfilled. All costs for trenching and backfilling shall be included in the pay item.

Basis of Payment:

This work shall be constructed in accordance with Section 816 of the Standard Specifications, and paid for at the contract unit price per foot for UNIT DUCT of the type and mounting height specified.

PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH, SPECIAL

Description:

This item shall consist of forming and constructing cast-in-place reinforced concrete sidewalks on prepared sub-grade which will overhang the MSE Walls to act as Copping for the MSE Walls. The sidewalk shall be constructed to the lines and grades shown on the plans in accordance with the provided details.

This item shall conform to the requirements of all applicable portions of Sections 424 and 503 and Article 1006.10 of the Standard Specifications. All reinforcement bars shall be epoxy coated. All concrete shall be Class SI Concrete.

Method of Measurement:

PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH, SPECIAL will be measured for payment in-place and the horizontal area computed in square feet. No separate vertical measurement of the portion overhanging the MSE will be made. Only the plan projection of the area will be measured for payment.

Basis of Payment:

This item shall be paid for at the contract unit price per square foot in-place for PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH, SPECIAL which shall include all labor, formwork, equipment and materials including Class SI Concrete and Epoxy Coated Reinforcing Bars necessary to complete the work as shown on the plans and stated herein.

RELOCATE EXISTING FLARED END SECTION

Description:

This work shall consist of the removal of existing flared end sections and grates to be either reinstalled at a specified location. Care shall be taken so as not to damage the existing flared end section or the existing pipe culvert during removal and transportation. The existing mortar or mastic shall be removed from the end section prior to its reuse to insure that a properly sealed joint results following reinstallation. The resulting disturbed ditch area shall be regraded appropriately according to the plans including restoration with seeding or sodding. Any damages incurred to the existing pipe culvert or flared end section as a result of this work shall be the full responsibility of the Contractor. Damaged pipe culverts or flared end sections shall be replaced and installed at the Contractor's expense. All work shall be performed at the direction of the Engineer.

Basis of Payment: This work shall be paid for at the contract unit price each for RELOCATE EXISTING FLARED END SECTION. This price shall include the cost of all labor, materials and equipment necessary to perform this work in addition to all disposal costs.

WATER MAIN SPECIAL PROVISIONS

Description: This item includes water main installation; trench excavation and backfilling; water main disinfection and testing; removal of portions of the abandoned pipe that conflict with the work; and all incidental and collateral work necessary to complete the improvements as shown on the plans and described herein. This item must be constructed in accordance with the applicable portions of the City of Naperville Standard Specifications (see Section 500 below) and Construction Details for Water Main Installations, Design Plans & Permit Guidelines for Water Main Constructions, these specifications, the plan details, and as directed by the Engineer.

SECTION 500 WATER DISTRIBUTION SYSTEM CONSTRUCTION STANDARDS

501 GENERAL

The standards and requirements found in this article are for materials and construction of water mains within the City of Naperville, Illinois. Specific references made herein for manufactured materials such as pipe, hydrants, valves and fittings refer to designations for American Water Works Association (AWWA) or to the American National Standards Institute (ANSI). Nothing herein shall constitute or imply an endorsement by the City of Naperville of any one material over another.

501.2 SPECIFICATIONS

These specifications cover pipe and fittings and items normally used for water distribution systems. Special considerations will be covered in the plans and special provisions. Water distribution systems shall be constructed in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, except as modified herein. In cases of conflict between standards, the more restrictive standard shall apply, as determined by the City Engineer.

501.3 START OF CONSTRUCTION

Water main construction shall not start before acquiring an IEPA Construction Permit.

502 PIPE

502.1 DUCTILE IRON PIPE

Ductile Iron pipe shall conform to ANSI Specification A21.51 or AWWA C151. Class 52 minimum thickness designation. Casting, marking, testing, etc. shall be provided in accordance with applicable ANSI or AWWA standards.

502.2 LINING FOR PIPES AND FITTINGS

Cement lining shall be provided in accordance with ANSI A21.4 and AWWA C104.

502.3 PIPE FITTINGS

All cast and ductile iron fittings shall conform to the latest ANSI Specifications A21.10/AWWA C110 for short body, cast and ductile iron fittings 3 inches (76 mm) to 48 inches (1.22 m) in diameter. Ductile iron compact fittings 3 inches (76 mm) to 24 inches (610 mm) in diameter shall be in accordance with ANSI Specification A21.53/AWWA C153.

503 PROTECTION OF WATER MAINS

503.1 GENERAL

Water mains and water service lines shall be protected from sanitary sewers, storm sewers, house sewer service connections and drains as follows (per IEPA Section 653.119):

503.2 HORIZONTAL SEPARATION - WATER MAINS AND SEWERS

- a) Water mains may be located closer than ten (10) feet (3.1 m) (clear separation) to a sewer line when:
 - 1) local conditions prevent a lateral separation of ten (10) feet (3.1 m); and
 - 2) the water main invert is at least 18 inches (460 mm) above the crown of the sewer; and
 - 3) The water main is either in a separate trench or in the same trench on an undisturbed earth shelf where the invert of the water main is eighteen (18) inches (460 mm) above the crown of the sanitary sewer located to one side of the sewer.
- b) When it is impossible to meet the above conditions, the sewer shall be constructed of water main quality pipe (PVC SDR 26 in accordance with ASTM D 2241 or ductile iron pipe class 52). This is to be done in lieu of "spot" lowering or raising the water main when possible.

503.3 VERTICAL SEPARATION WATER MAINS AND SEWERS

- a) A water main shall be separated from a sewer so that its invert is a minimum of 18 inches (460 mm) above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten (10) feet (3.1 m) (clear separation) horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.
- b) Both the water main and sewer shall be constructed of water main quality pipe when:
 - 1) It is impossible to obtain the proper vertical separation as described in (1) above; or
 - 2) The water main passes under a sewer or drain for a clear distance of ten (10) feet (3.1 m) on either side of the water main and be pressure tested to ensure water-tightness. Spot lowering of water mains shall only be permitted in cases of direct conflict when spot raising is not possible. Where a storm sewer crosses over a water main, the storm sewer shall either be constructed of water main quality pipe or of reinforced concrete pipe with rubber gasket joints conforming to ASTM C 361 or C443.
- c) A vertical separation of 18 inches (460 mm) between the invert of the sewer or drain and the crown of the water main shall be maintained where a water main crosses under a sewer. The sewer or drain lines shall be supported to prevent settling and breaking the water main, as shown on the plans or as approved by the City Engineer.
- d) The protection shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer or drain line is at least ten (10) feet (3.1 m) clear separation.

504 PIPE INSTALLATION FOR WATER MAINS

504.1 GENERAL

Pipe shall be installed in accordance with ANSI/AWWA Standard C600-93 (or latest edition), except as modified herein. Pipe installed in casings shall be done in accordance with the requirements of Section 304.7 of these specifications.

504.2 EXCAVATION AND BACKFILL

Excavation and backfill for water mains shall conform to the provisions of Section 20, 21 and 22 of the Standard Specifications for Water Sewer Main Construction in Illinois, latest edition, except as modified herein.

504.3 DEPTH OF PIPE COVER

Unless otherwise shown on the plans or indicated in the Special Provisions, all pipe shall be installed with a minimum of 5 feet (1.5 m) of ground cover, measured from the proposed grade to the top of the pipe. In areas subject to subsequent excavation or fill, the mains shall be laid to the grades shown on the plans.

504.4 PIPE FOUNDATIONS

The trench shall have a flat bottom conforming to the grade to which the pipe is laid. The pipe shall be laid on sound aggregate bedding, no less than four (4) inches (100 mm) in depth, true to grade and shall have a firm bearing for the full length of pipe. Any part of the trench excavated below grade shall be corrected with trench backfill material and thoroughly compacted. Aggregate bedding shall conform to IDOT gradation CA-11.

504.5 DEWATERING OF TRENCH

Where water is encountered in the trench, the water shall be removed during pipe laying and jointing operations. Provisions shall be made to prevent floating of the pipe. Trench water shall not be allowed to enter the pipe at any time.

505 HANDLING OF PIPE

- a) All types of pipe shall be handled in such a manner as will prevent damage to the pipe or coating. Damaged pipe and other accessories shall be rejected and replaced to the satisfaction of the City Engineer. The methods of handling shall be corrected to prevent further damage when called to the attention of the contractor.
- b) The pipe and fittings shall be inspected by the contractor for defects while suspended above grade.
- c) Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations and any pipe or fitting that has been installed with dirt or foreign material in it shall be thoroughly cleaned. At times when pipe laying is not in progress, and at the end of each working day, the open ends of the pipe shall be closed by a water tight plug to ensure absolute cleanliness inside the pipe. The plugs shall not be removed until the trench has been dewatered to the satisfaction of the City Engineer.

506 LAYING OF PIPE

506.1 LAYING OF PIPE ON CURVES

- a) Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflections at the joints.
- b) Where field conditions require deflection of pipe not shown on the plans, the City Engineer must give prior approval of the methods to be used.
- c) Maximum deflections at pipe joints and laying radius for various pipe lengths are as found in the following standards:
 - 1) Ductile Iron Pipe Mechanical Joints: AWWA C600-93 (or latest edition)
 - 2) Ductile Iron Pipe Push-On Joints: AWWA C600-93 (or latest edition)

- 3) At no time shall the deflection of the pipe joints exceed the manufacturer's maximum recommended deflection.

506.2 JOINTS FOR DUCTILE IRON PIPE

Joints for ductile iron pipe shall consist of one of the two following types unless otherwise provided in the special provisions:

- a) Mechanical Joints with high-strength, low alloy T-bolts
- b) Push-On Rubber Gasket Joints
- c) Gaskets for water main located within 100 feet of a vehicle fueling facility shall be Buna N or Fluorocarbon rubber.

506.3 JOINTING MECHANICAL JOINT PIPE

- a) Jointing procedures shall be in accordance with AWWA C600-93 (or latest edition). The outside of the spigot and the inside of the bell shall be cleaned. Lubrication and additional cleaning shall be provided by brushing both the gasket and plain end with an approved pipe lubricant meeting the requirements of ANSI/AWWA C111/A21.11, just prior to slipping gasket onto the plain end for joint assembly. The gland shall be placed on the plain end with the lip extension toward the plain end, followed by the gasket with the narrow edge of the gasket toward the plain end.
- b) The pipe shall be inserted into the socket and the gasket shall be pressed firmly and evenly into the gasket recess. The joint shall be kept straight during assembly.
- c) The gland shall be pushed toward the socket and centered around the pipe with the gland lip against the gasket. The bolts shall be inserted and the nuts hand tightened.
- d) The bolts shall be tightened to the normal range of bolt torque as specified in AWWA C600-93 (or latest edition) (75-90 ft-lbs [102-122 N-m] for pipes 4 inches to 24 inches [102 mm to 610 mm]), while at all times maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.
- e) Nuts spaced 180 degrees shall be tightened alternately in order to produce an equal pressure on all parts of the gland.

506.4 JOINTING PUSH-ON JOINT PIPE

- a) Jointing procedures shall be in accordance with AWWA C600-93 (or latest edition). The inside of the bell shall be thoroughly cleaned to remove all foreign matter from the joint. The circular rubber gasket shall be inserted in the gasket seat provided.
- b) A thin film of approved gasket lubricant shall be applied to the inside surface of the gasket. Gasket lubricant shall be a solution of vegetable soap or other solution supplied by the pipe manufacturer and approved by the City Engineer. The lubricant shall be approved for use with potable water. The spigot end of the pipe shall be cleaned and entered into the rubber gasket in the bell, using care to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the seat of the bell. Care must be taken not to damage exterior coating or interior linings while forcing the joint. A timber header or other suitable means shall be used to push the pipe "home", to avoid damage to the pipe.
- c) Field-cut pipe lengths shall be beveled to avoid damage to the gasket and facilitate making the joint.

- d) All pipe shall be furnished with a depth mark to assure that the spigot end is inserted to the full depth of the joint.

506.5 THRUST BLOCKING AND TIE RODS

Blocking to prevent movement of lines under pressure at bends, tees, caps, valves and hydrants shall be portland cement concrete, a minimum of 12" (300 mm) thick, placed between solid ground and the fittings (see standard detail WATER 6), and shall be anchored in such a manner that pipe and fitting joints will be accessible for repairs. The portland cement concrete shall meet or exceed a compressive strength of 3500 psi (24,000 kPa) after 28 days.

All bends of 11-1/4 degrees or greater, and all tees, crosses and plugs shall be thrust protected to prevent movement of the lines under pressure as shown on the plans.

Where unstable soil and/or backfill conditions exist, it may be necessary to install thrust blocking at deflected sections as well as at fittings. If required by the City Engineer, deflection blocking shall be installed at a point approximately 1/5 (one-fifth) of the pipe length each side of the coupling. Couplings/sleeves shall be restrained with approved retainer glands.

Tie rods shall be 5/8" (16 mm) diameter (minimum) stainless steel, grade 304. Eye bolts shall be high strength, low alloy steel.

Where conditions prevent the use of concrete thrust blocks, tied joints or restrained joints of a type approved by the City Engineer shall be used.

506.6 RETAINER GLANDS

The contractor may elect to use mechanical joint wedge action retainer glands in lieu of tie-rods. Mechanical joint wedge action retainer glands, when required to restrain valves, fittings, hydrants, and pipe joints shall be:

- a) MEGALUG 1100 Series as manufactured by EBAA IRON, INC., or
- b) Uni-Flange Blockbuster 1400 Series from Ford Meter Box Co.

For use on ductile iron pipe conforming to ANSI/AWWA C151/A21.51, nominal pipe sizes 3" (75 mm) through 48" (1.2 m). Existing ductile iron systems requiring restraint shall be Series 1100SD (split MEGALUG) for mechanical joints. Restraint system for restraining push-on pipe bells shall be MEGALUG Series 1100HD, or FORD Series 1390. Installation shall be per manufacturers' recommended procedures, including length and/or number of joints to be restrained.

Note: Thrust blocking shall be required behind fire hydrant assemblies in addition to the use of retainer glands and/or tie rods. The use of set screw type retainer glands shall not be permitted for use within the City of Naperville. Use of approved retainer glands does not eliminate the need for thrust blocking at fittings and valves unless approved by the Department of Public Utilities after review of the appropriate supporting calculations.

506.7 CONNECTIONS TO EXISTING MAINS

A representative from the Department of Public Utilities must be present at all connections to existing water mains. Connections to existing water mains shall be accomplished without interruption of service. Pressure tapping saddles/valves are to be provided at the point of connection to the existing system. Connections shall be made in accordance with Standard Details WATER 8 and WATER 9, and in accordance with Section 46 of the Standard Specifications for Water and Sewer Main Construction in Illinois. The outside surface of the existing main and the inner face of the tapping sleeve shall be disinfected with a 1 % chlorine solution.

506.8 ELECTRICAL CONTINUITY

When required by the City Engineer, all pipe fittings, valves, etc. shall be connected so that electrical current flow will not be reduced. Acceptable methods shall include continuity wedges, fused bell and spigot and brass inserts for push-on joints.

507 PRESSURE TESTING AND FLUSHING OF WATER MAINS

507.1 HYDROSTATIC TEST

- a) The newly laid water mains or any valved sections of it shall be subjected to a hydrostatic pressure test of no less than one-hundred and fifty (150) pounds per square inch (psi) (1030 kPa), or 50% more than the operating pressure, whichever is greater.
- b) The duration of each pressure test shall be for a period of not less than four (4) hours. The maximum allowable pressure drop shall be 25 psi (170 kPa).
- c) The pressure test gauge shall be glycerin or oil filled, with a range of not more than 200 psi (1400 kPa) and increments not greater than 5 psi (35 kPa).

507.2 PROCEDURE FOR TEST

Each valved section of pipe shall be slowly filled with water and flushed (see Section 508) The specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. Water used shall be metered. The pump to pipe connection and all necessary apparatus including gauges and meters shall be furnished by the contractor. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevation and afterwards turned off and capped. All joints showing visible leaks shall be repaired or replaced until they are free from leaks. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the contractor with sound material and the test shall be repeated until satisfactory to the City Engineer. In no instance shall "Bell Joint Clamps" be permitted to repair leaks at push-on Joints.

507.3 PERMISSIBLE LEAKAGE

- a) Suitable means approved by the City Engineer shall be provided by the contractor for determining the quantity of water lost by leakage. The leakage test shall be conducted after satisfactory completion of the pressure test before being acceptable.
- b) Allowable leakage shall not be greater than that indicated in Table 5.
- c) Leakage is defined as the quantity of water to be supplied in the newly laid pipe or any valved section under test which is necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.
- d) Flanged pipe shall be watertight.

TABLE 5

Allowable leakage for pipeline per 1,000 feet (gallons per hour)

Avg. Test Pressure PSI	Pipe Size in Inches															
	2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
	200	0.21	0.32	0.43	0.64	0.85	1.06	1.28	1.48	1.70	1.91	2.12	2.55	3.19	3.82	4.46
175	0.20	0.30	0.40	0.59	0.80	0.99	1.19	1.39	1.59	1.79	1.98	2.38	2.98	3.58	4.17	4.77
150	0.19	0.28	0.37	0.55	0.74	0.92	1.10	1.29	1.47	1.66	1.84	2.21	2.76	3.31	3.86	4.41
125	0.17	0.25	0.34	0.50	0.67	0.84	1.01	1.18	1.34	1.51	1.68	2.01	2.52	3.02	3.53	4.03
100	0.15	0.23	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.80	2.25	2.70	3.15	3.60
80	0.14	0.20	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.35	1.62	2.03	2.44	2.84	3.25
60	0.12	0.18	0.23	0.35	0.47	0.59	0.70	0.82	0.94	1.06	1.17	1.41	1.76	2.11	2.46	2.82

Allowable leakage for pipeline per 1,000 m (liters per hour)

Avg. Test Pressure kPa	Pipe Size in Millimeters															
	50	75	100	150	200	250	300	360	410	460	510	610	760	910	1070	1220
	1380	2.41	3.61	4.81	7.22	9.63	12.04	14.45	17.33	19.74	22.15	24.56	29.37	36.60	43.82	51.52
1210	2.25	3.38	4.51	6.76	9.02	11.27	13.53	16.23	18.49	20.29	23.00	27.50	34.27	41.03	48.24	55.01
1030	2.08	3.12	4.16	6.24	8.32	10.40	12.48	14.98	17.06	19.14	21.22	25.38	31.62	37.86	44.51	50.75
860	1.90	2.85	3.80	5.70	7.60	9.50	11.40	13.68	15.58	17.48	19.39	23.19	28.89	34.59	40.67	46.37
690	1.70	2.55	3.40	5.11	6.81	8.51	10.21	12.26	13.96	15.66	17.36	20.77	25.88	30.98	36.43	41.54
550	1.52	2.28	3.04	4.56	6.08	7.60	9.12	10.94	12.46	13.98	15.50	18.54	23.10	27.66	32.53	37.09
410	1.31	1.97	2.62	3.94	5.25	6.56	7.87	9.45	10.76	12.07	13.39	16.01	19.95	23.88	28.08	32.02

508 DISINFECTION OF WATER MAINS

508.1 FLUSHING

- a) Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If no hydrant is installed at the end of the main, then a tap should be provided large enough to develop a velocity of at least 2.5 feet per second (0.762 m per second) in the main. One two and one-half (2 1/2) inch (63 mm) diameter hydrant opening will, under normal pressure, provide this velocity in pipe sizes up to and including twelve (12) inches (300 mm). See Table 6 for additional sizes.
- b) All taps required by the contractor for chlorination or flushing purposes or for temporary or permanent release of air, shall be provided by him as part of the construction of water mains. When completed, the copper tubing shall be removed and the corporation stop placed at the "off" position. After testing, all corporation stops in valve vaults shall be brass-capped to protect threads.

TABLE 6

Required Orifice Sizes, In. (mm) to Flush Pipelines at 2.5 fps (0.76 mps)

PIPE SIZE In. (mm)	RESIDUAL PRESSURE, PSI (kPa)				
	20 (140)	40 (275)	60 (410)	80 (550)	100 (690)
4 (100)	1.11 (28)	0.94 (24)	0.85 (22)	0.79 (20)	0.75 (19)
6 (150)	1.64 (42)	1.38 (35)	1.24 (31)	1.16 (29)	1.09 (28)
8 (200)	2.23 (57)	1.88 (48)	1.69 (43)	1.58 (40)	1.49 (38)
10 (250)	2.75 (70)	2.31 (59)	2.09 (53)	1.94 (49)	1.84 (47)
12 (300)	3.34 (85)	2.81 (71)	2.54 (64)	2.37 (60)	2.24 (57)
14 (360)	3.86 (98)	3.25 (83)	2.94 (75)	2.73 (69)	2.58 (65)
16 (410)	4.31 (109)	3.63 (92)	3.28 (83)	3.05 (77)	2.88 (73)
18 (460)	4.98 (126)	4.19 (106)	3.78 (96)	3.52 (89)	3.33 (85)
20 (510)	5.53 (140)	4.65 (118)	4.20 (107)	3.91 (99)	3.70 (94)

NOTE: Standard hydrant nozzle sizes are 2.5 inch (63 mm) and 4.5 inch (114 mm)

509 REQUIREMENT OF CHLORINE

- a) Before being placed into service, all new water mains and/or extensions to existing mains shall be chlorinated so that an initial chlorine residual of at least 50 ppm is present, and that a chlorine residual of not less than 25 ppm remains in the water after standing twenty-four (24) hours in the pipe.
- b) For extensions and/or connections equal to or less than one pipe length (≤ 18 ft [5.5 m]), the new pipe, fittings and valve(s) required for the connection/extension, may be spray or swab disinfected with a minimum 1 percent hypochlorite solution just prior to being installed.
- c) Before a tapping sleeve is installed, the exterior of the main to be tapped shall be thoroughly cleaned and swabbed with a 1 percent hypochlorite solution, as well as the interior surface of the sleeve.
- d) Fire service lines requiring disinfection shall have the permanent position indicating valve (OS&Y or approved equal) installed on the fire sprinkler riser prior to disinfection.

509.1 FORM OF APPLIED CHLORINE

Chlorine shall be applied by one of the methods which follow, subject to approval by the City Engineer.

- a) Liquid Chlorine - A chlorine gas-water mixture shall be applied by means of a solution-feed chlorinating device or the dry gas may be fed directly through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated. Chlorinating devices for feeding solutions of chlorine gas or the gas itself must provide means for preventing the back flow of water into the chlorine cylinder.
- b) Chlorine-Bearing Compounds in Water - In certain instances, when the usage of chlorine gas is not practical, such as in congested or confined areas, upon approval of the City Engineer, a chlorine bearing compound of known chlorine content, prepared in solution form, may be substituted for chlorine gas.

509.2 POINT AND RATE OF APPLICATION

- a) Point of application - The preferred point of application of the chlorinating agent is at the beginning of the pipeline extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipe line extension. Alternate points of application may be used when approved or directed by the City Engineer.
- b) Rate of Application - Water from the existing distribution system, or other approved source of supply shall be controlled to flow very slowly into the newly laid pipeline during the application of the chlorine. The rate of chlorine mixture flow shall be a constant feed and in such proportion to the rate of water entering the newly laid pipe that the dosage applied to the water will be at least fifty (50) parts-per million unless otherwise directed by the City Engineer.
- c) Retention Period - Treated water shall be retained in the pipe at least twenty-four (24) hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least twenty-five (25) parts per million.
- d) Chlorinating Valves and Hydrants - After the process of chlorinating newly laid pipe, all valves internal to the isolated test section, or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent and under normal operating pressure.
- e) Preventing Reverse Flow - Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the existing distribution system supplying the water. Backflow valves are required on chlorine equipment piping.

510 FINAL FLUSHING AND TESTING

- a) Dechlorination/neutralization may be required by the City Engineer. The environment into which the chlorinated water is to be discharged shall be inspected. If there is any possibility that the chlorinated discharge will cause environmental damage, then a neutralizing chemical shall be added to the discharge water to thoroughly neutralize the chlorine residual remaining in the water (see AWWA C651, Appendix B).
- b) Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its length shows, upon test, a residual not in excess of that carried in the source of supply.
- c) After flushing, water samples collected on two (2) successive work days from the treated piping system, as directed by the City Engineer, shall show satisfactory bacteriological results. Bacteriological analysis must be performed by a laboratory approved by the Director of the Illinois Department of Public Health and the City Engineer. A minimum of two samples is required. The actual number of samples will be determined by the City Engineer.

- d) Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the contractor until satisfactory results are obtained.
- e) Naperville Department of Public Utilities must be notified at least 48 hours prior to flushing. New water mains, including pressure tap valves, connected to an existing water main, and existing water main valves shall only be operated by Naperville Department of Public Utilities personnel.

511 VALVES FOR WATER MAINS

511.1 DESCRIPTION

- a) The valves shall be suitable for ordinary water works service, intended to be installed in a normal position on buried pipe lines or water distribution systems.
- b) For fire lines to buildings, the permanent valve must be in place prior to disinfection and sampling.
- c) The minimum requirements for all valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C509 and C504. All materials used in the manufacture of water works valves shall conform to the AWWA standards designed for each material listed.
- d) Valves shall be installed where shown on the approved engineering plans.

511.2 MATERIALS

- a) **Manufacture and Marking** - The valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body. Valves may be approved from one of the following manufacturers: American, Clow, Waterous or Kennedy.
- b) **Type and Mounting:**
 - 1) The valve bodies shall be cast or ductile iron, mounted with approved non-corrosive metals. All wearing surfaces shall be of approved non-corrosive material.
 - 2) All valves sixteen (16) inches (405 mm) and less shall be resilient wedge gate valves with non-rising stems with upper and lower thrust collars. Waterways shall be smooth and have no groove or depression where foreign material can lodge and prevent sealing. The stem shall be bronze or other approved non-corrosive metal. All valves shall open by turning counterclockwise. Resilient wedge gate valves shall meet the standards of AWWA C509.
 - 3) All valves eighteen (18) inches (457 mm) and larger must be butterfly valves meeting AWWA C504 standards.
- c) **End Connections** - End connections of all valves shall be the mechanical joint type.

511.3 VALVE STEM SEALS

Unless otherwise designated in the special provisions, all valves up to and including sixteen (16) inches (406 mm) in size, shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

511.4 WRENCH NUTS

Wrench nuts shall be made of cast iron and shall be one and fifteen-sixteenths (1-15/16) inches (49 mm) square at the top, two (2) inches (50 mm) square at the base, one and three-fourths (1-3/4) inches (44 mm) high, unless otherwise designated in the Special Provisions. Nuts shall have a flanged base upon which shall be cast an arrow at

least two (2) inches (50 mm) long showing the direction of the opening. The word "open" in one-half (1/2) inch (13 mm) or larger letters shall be cast on the nut to clearly indicate the direction of opening the valve.

511.5 TAPPING VALVES

Tapping valves shall be furnished with flanged inlet and connections having a machined projection on the flanges to mate with a machined recess on the outlet flanges of the tapping sleeves and crosses. Tapping sleeve must be made of cast iron, ductile iron or heavy duty stainless steel. Tapping sleeves of stainless steel shall not be used for "size on size" installations.

After the surface disinfection, the tapping saddle or sleeve shall be mounted to the main and tapping valve to form a pressure-tight connection. The installation shall be pressure tested at operating pressure plus 50 percent, to insure the integrity of the installation. This shall be a hydrostatic test, introduced through a port on the tapping machine, or through a tapped mechanical joint plug on the outlet side of the tapping valve. The tapping machine and the tapping valve and sleeve assembly shall be externally supported so that no additional weight is placed upon the main(s).

511.6 INSERTING VALVES

The materials, internal design, construction, workmanship, and manufacture's tests of inserting valves shall conform with AWWA Standard C-500 or the latest revision, as modified by the following:

- a) The inserting valves shall be of a ductile iron body, bronze-mounted, non-rising stem, double non-revolving disc, parallel seat, and side wedging construction.
- b) All grey-iron castings shall conform to the requirements of ASTM Specification A126 Class B (31,000 psi minimum tensile strength), or the latest revision.
- c) Valve stems shall be cast, forged or rolled bronze, free from defects.
- d) Valves shall have a mechanical joint bell end, one bell being larger than normal to accept the inserting sleeve. Bells shall contain elastomer gaskets permanently attached in a plane perpendicular to the centerline of the bore.
- e) Valves shall be rated at 150 psig test with 80 psig working water pressure
- f) No bypass will be required
- g) Valves shall be furnished for and installed in a horizontal conduit with the valve stem plumb over the center line of the pipe.
- h) Valves shall open to the left or counter-clockwise.
- i) Valve stem seals shall consist of conventional stuffing boxes, or "O-ring type seals. Gland bolts and nuts shall be of the same quality bronze as the valve stems.
- j) Inserting Sleeve- Each inserting valve shall be provided with a split sleeve of the stuffing box type. Said sleeve shall have a bell mechanical outlet outboard of the valve for sealing to the conduit. Wall thickness, materials of construction, and workmanship shall conform to AWWA Standard C-1000 or the latest revision.
- k) The Contractor shall submit three copies of all drawings, furnished by the manufacture, fully and distinctly illustrating and describing the insert valve and sleeve proposed to be furnished.
- l) Job Site Performance Tests – Prior to installation the valve shall be operated in the position that will assume in service and for the full length of gate travel in both directions to demonstrate the free and perfect functioning of all parts in the intended manner. Any defects of workmanship shall be corrected and test repeated until satisfactory performance is demonstrated.

- m) Insert valve to be A. P. Smith Insert Valve, or approved equal.

511.7 HYDROSTATIC TEST PRESSURE AT FACTORY

Each valve shall be tested at the factory for performance and operation prior to painting and shall be subjected to the following hydrostatic pressure tests: each three (3) inch (75 mm) to sixteen (16) inch (406 mm) R/W valve, shall be subjected to hydrostatic pressure test per AWWA C509-80. Each eighteen (18) inch (457 mm) to forty-eight (48) inch (1.22 m) butterfly valve shall be subjected to test pressures per AWWA C504.

511.8 EPOXY COATINGS OF VALVES (AT FACTORY)

Painting at Factory - After the factory test and inspection, all ferrous parts of the valves except finished or bearing surfaces shall have a fusion bonded epoxy coating which complies with AWWA C550.

511.9 INSTALLATION OF VALVES

- a) All valves shall be inspected upon delivery in the field to insure proper working order before installation. They shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connection ends furnished.
- b) All valves shall be provided with a standard valve chamber so arranged that no shock will be transmitted to the valve and the box or vault opening shall be centered over the operation nut, and the cast iron cover shall be set flush with the road bed or finished surface.
- c) After installation all valves shall be subjected to the field test for piping as outlined in Section 507 of these specifications. Should any defects in materials or workmanship appear during these tests, the contractor shall correct such defects with the least possible delay and to the satisfaction of the City.

512 VALVE VAULTS AND BOXES FOR WATER MAINS AND WATER SERVICES

512.1 GENERAL

- a) This section shall apply to the construction of standard or special valve vaults, cast iron valve boxes and curb boxes, all in accordance with the Naperville Standards.
- b) Valve boxes/vaults must be free of debris, centered over operating nut and easily key-able.
- c) Valve boxes and extensions must be cast iron only (no plastic).
- d) Valve boxes/lids shall be Tyler, two-piece with drop lid, 6850 series (screw type, 5-1/4" shafts), or approved equal.

512.2 MATERIALS

Cover and Valve Box Castings - Castings with cast iron ring and cover and cast iron parts of valve boxes shall conform to the requirements of Standard Specifications for Gray Iron Castings, ASTM Designation A-48.

512.3 VAULT APPURTENANCES

The following items shall apply to all vault structures:

- a) Vaults shall be furnished with a self-sealing frame and slotted cover (Neenah Foundry R-1772-CVH, East Jordan Iron Works 1022-3 or approved equal) with the word "WATER" imprinted on the cover in raised letters.
- b) Both the vault frame and cover shall have machined horizontal and vertical bearing surfaces.

- c) Pick holes shall not create openings through the vault cover.
- d) Vault frames shall be adjusted to proper grade utilizing reinforced precast concrete rings; brick or concrete blocks will not be allowed.
- e) Adjusting rings shall be securely sealed to the cone section or top barrel section of the vault using resilient, flexible, non-hardening preformed butyl mastic material (CONSEAL CS-102B or an equal approved by the City Engineer). This mastic shall be applied in such a manner that no surface water or ground water inflow can enter the vault through gaps between the top barrel section or cone section and the first adjusting ring, between adjusting rings, or between the last adjusting ring and the vault frame. Up to twelve inches (12") (300 mm) of adjusting rings may be installed on a given vault; however, no more than one (1) two inch (2") (50 mm) adjusting ring and no more than two (2) rings in total shall be used.
- f) A butyl mastic material (CONSEAL CS-102B or equal approved by the City Engineer) shall be used to provide a water tight seal between vault barrel sections, cone to barrel section, and the cone section to frame and cover.
- g) Seal tight valve vaults may be either pre-cast, or cast-in-place, with a minimum diameter of forty-eight (48) inches (1.22 m). On vaults with butterfly valves, eccentric cones shall be installed so that the opening of the cone is placed as close to the center line of the operation as possible (see Standard Detail WATER 4).

512.4 CAST IRON VALVE BOXES FOR GATE VALVES

Adjustable cast iron valve boxes shall be set to position during backfilling operations so they will be in a vertical alignment to the valve operating stem. The lower casting of the unit shall be installed first in such a manner as to be cushioned and to not rest directly upon the body of the R/W valve or upon the water main. The upper casting of the unit shall then be placed in proper alignment into such an elevation that its top will be at final grade. Backfilling around both units shall be placed and compacted to the satisfaction of the Engineer.

512.5 CURB BOXES

- a) Curb boxes (B-Boxes) shall be arch type, one (1) inch (25 mm) I.D. box with rod for a one (1) inch (25 mm) curb stop, and a one and one-quarter (1-1/4) inch (32 mm) I.D. curb box for a one and one-quarter (1-1/4) inch (32 mm) curb stop or larger with no rod. One (1) inch (25 mm) curb boxes shall have a one (1) inch (25 mm) threaded brass pentagon plug with the word "WATER" in raised letters on the cap (1- 1/4 inch [32 mm] curb boxes shall have a 1-1/4 [32 mm]inch plug). Curb boxes shall be capable of extensions and installed to finished grade, and shall conform to the depth of bury of the service line as provided in the Naperville Standard Detail WATER 1. "Pigtails" on customer side of curb stop are not allowed.
- b) When planting trees, the outside edge of the root ball shall be at least five (5) feet from the service box.
- c) Curb stops are to be compression type by Mueller, Ford or A.Y. McDonald.

513 FIRE HYDRANTS

513.1 GENERAL

These specifications are to be used in conjunction with the AWWA Standard C502 for fire hydrants for ordinary water works service. Fire hydrants shall be installed at the locations shown on the approved engineering plans.

513.2 MATERIALS

- a) All fire hydrants shall be 5-1/4" valve opening.
- b) All materials used in the production of fire hydrants for ordinary service shall conform to the specifications designated for each material listed in AWWA Standard C502.

- c) The hydrant shall be Waterous Pacer WB-67 5-1/4" (133 mm), Mueller A-421 5-1/4" (133 mm) valve opening, or Clow F-2500 5-1/4" (133 mm) valve opening and of a pattern approved by the City Engineer. The seat must be of bronze to bronze. The name or mark of the manufacturer and size of the valve opening shall be plainly cast in raised letters and so placed on the hydrant barrel as to be visible after the hydrant has been installed.
- d) Lugs, if required for harnessing the hydrant to the connection pipe from the main in the street, shall be provided on the bell of the elbow or on the hydrant bottom casting. A drawing of the lug construction shall be submitted for approval, on request of the City Engineer.
- e) Hydrants shall be breakaway/traffic style. Breaking devices shall be at the breakaway flange which will allow the hydrant barrel to separate at this point with a minimum breakage of hydrant parts in case of damage. There shall also be provided at this point, a safety stem coupling on the operating stem that will shear at the time of impact. Unless otherwise specified, all hydrants shall be equipped with o-ring stem seals. The breakaway flange is to be just above the proposed ground level per manufacturer specifications.
- f) Hydrant cap chains and chain hooks are not to be installed on hydrant. If any chains and chain hooks have been installed, they shall be removed prior to final acceptance.

513.3 HYDRANT DETAILS

- a) The dimensions and details of hydrants and nozzles, unless otherwise noted, shall be as follows:

Hydrant 6" (150 mm) Connection:

Hydrant connection pipe size inside diameter	6 inches	150 mm
Standpipe minimum inside diameter	6 inches	150 mm
Length of hydrant from bottom of hydrant connection to breakaway flange	5 ½ ft. bury depth min.	1.68 m bury depth min.
Valve opening diameter	5 ¼ inches	114 mm
Size of auxiliary gate valve	6 inches	150 mm
Hose nozzles, number and size	Two 2 ½ inch & 4 ½ inch	Two 63 mm & 114 mm

Hydrant 6" (150 mm) Connection Thread Details:

Steamer Nozzles, number and size	National Standard Hose Thread
Diameter at root of thread	National Standard Hose Thread
Pattern of thread	National Standard Hose Thread
Total length of threaded male nipple	National Standard Hose Thread

- b) All nozzles shall be fitted with cast iron threaded caps with operating nut of the same design and proportions as the hydrant stem nut. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable gaskets for positive water tightness under test pressures.
- c) The operating nuts on hydrant stem and nozzle caps shall be the same for all sizes of hydrants. Dimensions shall be as follows:
 - 1) Pattern of Nut: Pentagonal
 - 2) Height: 1-1/16 inch (27 mm)
 - 3) Size of Pentagon: 1.35 inch (34 mm) at bottom of nut 1.23 inch (31 mm) at top of nut measured from point to flat

- d) The hydrant valve shall open by turning to the left (counterclockwise).

513.4 FACTORY HYDROSTATIC TEST

Before the hydrant is painted at the factory, it shall be subjected to a minimum hydrostatic test of 300 pounds per square inch (2070 kPa) with the hydrant valve in a closed position and again with the hydrant valve in an open position

513.5 PAINTING

All iron parts of the hydrant, both inside and outside shall be thoroughly cleaned and thereafter painted with one coat of paint of a durable composition, and two additional exterior coats of Tneme-Gloss Safety Orange (#E0119) per National fire code specifications (final coat shall be applied after installation).

513.6 CONSTRUCTION DETAILS

Hydrants shall be plumb and shall be set so that the center of the hydrant port is a minimum of eighteen (18) inches (457 mm) to a maximum of twenty-four (24) inches (610 mm) above the surrounding finished grade ensuring the breakaway flange at proper ground height. All hydrants shall be inspected in the field upon delivery to the job to ensure proper operation before installation. A minimum of 1/4 cubic yard (0.23 cu m) of washed coarse stone shall be placed at and around the base of the hydrant to ensure proper drainage of the hydrant after use. The blocking of the hydrant shall consist of a wedge of portland cement concrete of not less than 1/4 cubic yard (0.23 cu m) extending from the hydrant to undisturbed soil and shall be so placed to form a barrier adjacent to the hydrant base top to counteract the pressure of water exerted thereon. Care shall be taken to insure that weep holes are not covered by concrete. The hydrant shall be set on a concrete block to ensure a firm bearing for the hydrant base. The hydrant valve and tee shall be interconnected by stainless steel rods or approved retainer glands. Locking or restrained fittings may be substituted only after prior approval from the City Engineer. The resetting of existing hydrants and moving and reconnection of existing hydrants shall be handled in a manner similar to the new installation. The contractor shall rotate and/or adjust the hydrants to the satisfaction of the department of Public Utilities. The hydrant settings shall follow the Naperville Standard Detail WATER 2.

514 PROTECTION AGAINST CORROSION

514.1 POLYETHYLENE ENCASEMENT

This covers material specifications and installation procedures for polyethylene encasement to the underground installations of gray, ductile and cast iron pipe and other related appurtenances or water main. Polyethylene encasement of all iron pipe shall be required unless a soils report submitted to the City by the Ductile Iron Pipe Research Association indicates that the soils in the area are not corrosive to iron pipe. Should corrosive soils be encountered during the installation of the pipe, then the pipe shall be encased in polyethylene wrap.

514.2 MATERIALS

The material used for the job shall be in accordance with Table 7 as shown:

**Table 7
Raw Material Used to Manufacture Polyethylene Film**

Type, class, grade, & other characteristics shall be in accordance with ASTM Standard D-1238

Type	I
Class	A Natural Color or Black
Grade	E-1
Flow Rate (formerly Melt Index)	0.4 Maximum
Polyethylene Film	Volume resistivity minimum $\text{ohm-cm}^3 = 10^{15}$
Tensile Strength	1200 psi (8270 kPa) Minimum
Elongation	300 percent minimum
Dielectric Strength	800 volts per mil. thickness minimum

514.3 THICKNESS

Polyethylene film shall have a minimum thickness of 0.008 inch (8 mils) (0.203 mm). The minus tolerance of thickness shall not exceed 10 percent (10%) of the nominal thickness.

514.4 TUBE SIZE OR SHEET WIDTH

Tube or sheet size for each pipe diameter shall be listed in Table 8.

Table 8
Minimum Polyethylene Width - Inch (mm)

Nominal Pipe Diameter inch	Flat Tube	Sheet
3 (25)	14 (355)	28 (710)
4 (100)	16 (405)	32 (810)
6 (150)	20 (510)	40 (1015)
8 (200)	24 (610)	48 (1220)
10 (250)	27 (685)	54 (1370)
12 (305)	30 (760)	60 (1525)
14 (355)	34 (865)	68 (1725)
16 (405)	37 (940)	74 (1880)
18 (455)	41 (1040)	82 (2080)
20 (510)	45 (1145)	90 (2285)
24 (610)	54 (1370)	108 (2745)
30 (760)	67 (1700)	134 (3405)
36 (915)	81 (2055)	162 (4115)
42 (1065)	95 (2415)	190 (4825)
48 (1220)	108 (2745)	216 (5485)
54 (1370)	121 (3075)	242 (6145)

514.5 INSTALLATION GENERAL

Installation shall be in accordance with ANSI/AWWA C105/A21.5. The polyethylene encasement shall prevent contact between the pipe and the surrounding backfill and bedding material but is not intended to be a completely air and water tight enclosure. Overlaps shall be secured by the use of adhesive tape, plastic string, or other material capable of holding the polyethylene encasement in place until backfilling operations are completed.

514.6 PIPE WRAPPING

The standard includes three different methods for the installation of polyethylene encasement on pipe. Methods A and B are for use with polyethylene tubes and method C for use with polyethylene sheets.

514.6.1 METHOD A

Cut polyethylene tube to a length approximately two (2) feet (600 mm) longer than that of the pipe section. Slip the tube around the pipe, centering it to provide a one (1)-foot (300 mm) overlap on each adjacent pipe section, and bunching it accordion fashion length-wise until it clears the pipe ends.

Lower the pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation to the polyethylene tube.

After assembling the pipe joint, make the overlap of the polyethylene tube. Pull the bunched polyethylene from the preceding length of pipe, slip it over the end of the new length of pipe and secure in place. Then slip the end of the polyethylene from the new pipe section over the end of the first wrap until it overlaps the joint at the end of the preceding length of pipe.

Secure the overlap in place. Take up the slack width to make a snug, but not tight fit along the barrel of the pipe, securing the fold at quarter points.

Repair any rips, punctures, or other damage to the polyethylene with adhesive tape or with a short length of polyethylene tube cut open, wrapped around the pipe and secured in place. Proceed with installation of the next section of pipe in the same manner.

514.6.2 METHOD B

Cut polyethylene tube to length approximately one (1)-foot (300 mm) shorter than that of the pipe section. Slip the tube around the pipe, centering it to provide six (6) inches (50 mm) of bare pipe at each end. Make polyethylene snug, but not tight; secure ends as described elsewhere.

Before making up a Joint, slip a three (3)-foot (915 mm) length of polyethylene tube over the end of the preceding pipe section, bunching it accordion fashion lengthwise. After completing the joint, pull the three (3)-foot (915 mm) length of polyethylene over the joint, overlapping the polyethylene previously installed on each adjacent section of pipe by at least one (1)-foot (300 mm); make snug and secure each end as described elsewhere.

Repair any rips, punctures, or other damage to the polyethylene. Proceed with installation of the next section of pipe in the same manner.

514.6.3 METHOD C

Cut polyethylene sheet to a length approximately two (2) feet (600 mm) longer than that of the pipe section. Center the cut length to provide a one (1)-foot (300 mm) overlap on each adjacent pipe section, bunching it until it clears the pipe ends. Wrap the polyethylene around the pipe so that it circumventionally overlaps the top quadrant of the pipe. Secure the cut edge of polyethylene sheet at intervals of approximately three (3) feet (915 mm).

Lower the wrapped pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation of the polyethylene. After completing the joint, make the overlap as described above.

Repair any rips, punctures or other damage to the polyethylene. Proceed with installation of the next section in the same manner.

514.7 PIPE SHAPED APPURTENANCES WRAPPING

Cover bends, reducers, offsets, and other pipe-shaped appurtenances with polyethylene in the same manner as the pipe.

514.8 ODD SHAPED APPURTENANCES WRAPPING

When valves, tees, crosses, and other odd-shaped pieces cannot be wrapped practically in a tube, wrap with a flat sheet or split length of polyethylene tube by passing the sheet under the appurtenance and bringing it up around the body. Make seams by bringing the edges together, folding over twice, and taping down. Handle width and overlaps at joints as described above. Tape polyethylene securely in place at valve stem and other penetrations.

514.9 STAINLESS STEEL BOLTS

When polyethylene encasement of pipe is required to protect against corrosion all bolts (for appurtenances and MJ connections) shall be stainless steel.

515 CONNECTION TO EXISTING WATER MAINS

515.1 CONNECTION TO EXISTING WATER MAINS

Connections to all City water mains must be pressure tap connections unless otherwise approved by the City Engineer, as shown on the approved engineering plans.

515.2 NOTIFICATION

- a) When connecting to the end of an existing line, work must be coordinated with the Department of Works and the Department of Public Utilities with 48 hours notice. Personnel from the Department of Public Utilities are the only ones who are to operate water main valves. When water is needed to chlorinate new lines from adjacent City mains which are in service, Department of Public Utilities personnel must be present to operate or witness the contractor operation of existing City valves.
- b) When extending an existing line, the contractor must chlorinate and pressure test both new and valved section of existing lines in accordance with City standards.
- c) When connecting on to the end of an existing water main, where customers are already using the main, the following must be done:
 - 1) Department of Public Utilities-CEE/CM Division must have a minimum of 48 hours notice prior to shut-down so that it may have appropriate time to notify affected customers.
 - 2) Water service must be returned to existing customers as soon as possible.
 - 3) When directed by the City, chlorinate line for 2 hours (existing customers B-box or meter valve is shut-off by contractor), and perform the following:
 - i) Open the hydrant "past" the closest newly installed valve, run the water for a period of at least five minutes, and until a .5 mg/liter chlorine residual achieved.
 - ii) After a sample is taken, and a normal system chlorine residual is achieved (not less than 0.2 mg/l), the newly installed valve is shut and all existing customers have been restored to full service, the samples shall then be taken to an IEPA approved laboratory.
 - iii) The following two days, after achieving a .5 mg/liter chlorine residual, samples must be taken to an IEPA certified laboratory. The contractor shall furnish lab reports documenting satisfactory results of the sample testing prior to water service being restored.

516 UTILITY IDENTIFICATION

- a) A wood 4"x4"x6' (100 mm x 100 mm x 2 m) stake with not less than the top two (2) feet (600 mm) painted blue shall be installed next to each water vault, buffalo box, and valve box for protection of that appurtenance. The stake (4"x4"x6') shall be maintained in a plumb position.
- b) When newly poured curbs are installed, the contractor shall use a city approved stamp to indent the wet concrete with a "W" to identify the location of each water vault, buffalo box, and valve box. The letter "W" will be indented at the top of the curb one and one-half (1-1/2) inch (38 mm) to two (2) inches (50 mm) in height and width and at a depth of three-eighths (3/8) inch (10 mm).

If the developer and/or the contractor fail to indent the curbs as outlined above, the City Engineer may require that identification medallions, or other symbols approved by the City Engineer, be affixed to the curb.

END SECTION 500 PORTION, CITY NAPERVILLE STANDARD SPECIFICATIONS

Watermain-related Special Provision Pay Items in this Project include

**ABANDON EXISTING WATER MAIN
WATER MAIN LINE STOP, 12"
WATER MAIN LINE STOP, 16"
VALVE VAULTS TO BE REMOVED**

Description: The watermain between the new 16-inch connections is to be abandoned once the new watermain is installed. The Contractor shall install the watermain as shown on the plans and completely flush and chlorinate said main. Contractor to provide line stops where indicated on the plans or as directed by the Engineer.

After all water services have been reinstated, the contractor shall abandon the existing watermain by installing caps at the locations indicated in the plans or as directed by the Engineer, assisted by the public works department, performing appropriate valve closings as necessary.

New water main valves, including pressure tap valves, adjacent to an existing water main, and existing water main valves shall only be operated by the City of Naperville, Department of Public Utilities CEE/CM Division personnel with 48-hour notice (Monday-Friday). 630-420-4122

Basis for Payment: This work will be paid for at the contract unit price per EACH for ABANDON EXISTING WATER MAIN, WATER MAIN LINE STOP, 12", and WATER MAIN LINE STOP, 16".

Valves specified on the plans to be cut and capped shall be closed and then cut a minimum of twelve inches (12") below the existing ground surface and then filled with concrete, sand or other appropriate material. This work will be paid for at the unit price per EACH for VALVE VAULTS TO BE REMOVED.

Additional Watermain-related Special Provision Pay Items in this Project include

**DUCTILE IRON WATER MAIN 12"
DUCTILE IRON WATER MAIN 16"
WATER VALVES 12"
WATER VALVES 16"
DUCTILE IRON WATER MAIN BEND, 45 DEGREE, 12 INCHES
DUCTILE IRON WATER MAIN BEND, 90 DEGREE, 16 INCHES
DUCTILE IRON WATER MAIN TEE, 16" x 12"**

Method of Measurement: Water mains of the various types and diameters will be measured for payment in feet in place, tested and accepted. No deductions will be made for bends and fittings along the pipe, and no measurement will be made of pipe lengths that must be cut off and wasted. Water main fittings indicated on the plan drawings including bends and tees of the various diameters will be measured in place for payment per each such fitting. No separate payment will be made for excavating the water main trench to the lines and depths shown on the plan drawings.

Additional excavation ordered by the Engineer to remove boulders or unsuitable soils from the bottom of the trench will be measured in place and paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS. Gravel or crushed stone placed as a foundation in those trenches that are over excavated at the direction of the Engineer must be measured in place and paid for at the contract unit price per cubic yard for POROUS GRANULAR EMBANKMENT,

SUBGRADE, at the Engineer's direction. In areas where pipes are within two feet of existing or future paved areas, clean, dry trench backfill material must be placed as specified herein must be calculated using the nominal dimensions of the trench and paid for at the contract unit price per cubic yard for TRENCH BACKFILL.

Basis for Payment: This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN, of the diameter specified, measured in place; at the contract unit price per each for DUCTILE IRON WATER MAIN BEND, of the angle and diameter specified, measured in place; at the contract unit price per each for DUCTILE IRON WATER MAIN TEE, of the inlet and outlet diameters specified, measured in place; and at the contract unit price per each for WATER VALVES, of the diameters specified, measured in place. The prices for these items must include the cost of all excavation, pipe, joint material, hydrostatic pressure tests, leakage tests, and disinfection.

These items must include any and all water-main related items that are not separately measured for payment under pay items in this Contract such as corporation stops (for testing), water, pumps, gauges, meters and laboratory test costs, retainer glands, reducers and other temporary fittings, and all incidental parts, labor and equipment necessary to complete the work as specified herein.

TELEVISION INSPECTION OF SEWER

Description: Furnish the necessary labor, supervision, power equipment and material to clean and inspect by closed circuit color television.

Contractor is responsible for the following:

- The Contractor shall develop and maintain a safety program which will implement required safety procedures recognized and required of their industry group.
- The Contractor shall have in place and instituted a confined space entry program which at a minimum meets the OSHA regulation - 29 CFR 1910.146.
- Accidents shall be reported to the engineer/customer promptly, in writing, giving full details describing the incident including statements from witnesses.

Item 1 - Cleaning of Sewers

The bidder shall provide all equipment necessary for the proper high pressure water jetting, rodding, bucketing, brushing and flushing of the sewers prior to the inspection by closed circuit color television and chemical grouting services. The purpose of the sewer cleaning operation is to remove such accumulation of sediment, debris, blockages, mineral deposits, bricks, grease, etc. to permit a thorough and complete examination of the condition of the sewer through internal closed circuit color television inspection and/or the rehabilitation of the sewer through pressure chemical grouting operations.

Preparatory Cleaning - If, in the opinion of the Engineer, preparatory cleaning of sewer produces a satisfactorily clean sewer, the Contractor shall proceed with the internal color television inspection of the sewer. This preparatory cleaning work will be paid for at the contract unit price per lineal foot for preparatory cleaning of sewer (of the diameter specified).

However, should the Engineer determine that preparatory cleaning of sewer has failed to satisfactorily clean the sewer line section in question, the Engineer shall then direct the Contractor to remove any remaining debris using the techniques listed under the section Heavy

Cleaning. The Contractor shall then proceed with internal color television inspection of sewer. Heavy cleaning of the sewer will additionally be paid for at the contract unit price per lineal foot for heavy cleaning of sewer (of the diameter specified).

Light Cleaning - Where it has been determined through a visual inspection that only small deposits of debris exist within the sewer line and cleaning would require not more than three (3) passes through the line with high pressure water jetting equipment.

Heavy Cleaning - Where it has been determined that large deposits of debris or root growth exists within the sewer lines and cleaning would require more than three (3) passes through the line with high pressure water jetting equipment, then heavy equipment will be used to facilitate the removal of such deposits. Bucket machines, scrapers, augers and 120 gpm and higher jetting equipment can be utilized in this heavy duty cleaning. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that breakage will not occur hanging the cleaning equipment up within the sewer lines.

Removal of Debris

All sludge, dirt, sand, rocks, grease, roots and other solid or semisolid material resulting from the cleaning operation shall be removed at the downstream structure of the section being cleaned. Passing material from structure section to structure, which can cause line stoppages, accumulations of sand in wet wells or damage to pumping equipment, shall not be permitted.

Disposal of Debris

All dirt, debris, roots and other material removed from the sewers shall be hauled away by the Contractor to a dump site furnished by the Owner. All regulations of the Environmental Protection Agency and all other regulating agencies shall be followed.

Cleaning Equipment

The equipment used for sewer cleaning shall be capable of all removing dirt, grease, rocks, roots and other deleterious materials. The equipment shall be selected by the Contractor to prevent damage to the pipe. Cleaning equipment capable of cleaning lengths up to 1,000 feet shall be provided. Equipment must be able to clean this length with vehicular access to one structure only.

Cleaning shall be of the entire reach between structures. If cleaning of an entire section cannot be successfully performed from one structure, the equipment shall be set up on the other structure and cleaning again attempted without additional compensation.

Item 2 - Color Television Inspection of Sewers

The bidder shall furnish all labor, electronic equipment and technicians to perform the closed circuit television inspection of the sewers. Operation of the equipment is to be controlled from above ground with a skilled technician at the control panel in the television studio, controlling the movement of the television camera through the sewer in either direction.

Televising equipment shall include the television camera, television monitor, cables power source, lights and other equipment necessary to the televising operation.

The color television camera shall be one specifically designed and constructed for the purpose of televising sewers. The color camera shall have a high resolution lens, capable of spanning 360-degrees circumference and 270-degrees on horizontal axis to televise sewer lines 6-inch diameter and larger. Focal distance shall be adjustable through a range of 1 inch to infinity. The purpose of the rotating head camera is to view all service connections, and to locate all defects, as well as any questionable problem areas.

For manholes that may be difficult to access or where lamp holes are present in the place of manholes, the Contractor shall have available a self-propelled crawler transporter on which to mount the color television camera so as to be able to inspect the sewer as required.

Camera and lighting quality shall be suitable to provide a clear, continuously in-focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. The camera shall be able to operate efficiently in 100% humidity conditions. The camera, television monitor and all other necessary components of the video system shall be capable of producing a minimum 350-line resolution color video picture.

Where obstructions within the sewer line prevent the passage of televising equipment, the Contractor shall reset his equipment to pass through the sewer line section from the other end and thereby complete the inspection. Inspection to be completed under no-flow conditions.

Digital Recording: The findings of the sewer inspection shall be digitally recorded on compact discs (CD's) and include both video and audio information that accurately reproduces the original pictures and sounds of the inspection. All recordings shall be provided in MPEG-1 format with a resolution of 352 pixels (x) by 240 pixels (y) at a rate of 29.97 frames per second. Separate MPEG-1 files, reports and still images shall be created for each manhole to manhole pipe segment inspected.

The pipeline inspection shall consist of identifying a location both within the pipe segment (physical location) and within the digital recording (video frame location) for each defect or observation. The use of time codes for defect location shall NOT be deemed equivalent or acceptable. The digital recording and inspection data is to be cross-referenced for instant access to any point of interest within the digital recording. The inspection information shall include the digital recording of video and audio, segment identification information (starting manhole, date, time, etc.) including a pointer from each observation to the digital recording (video frame number), and any accompanying digital still images (JPEG or BMP).

Any out-of-focus video recordings, or portions thereof, shall be cause for rejection of the video recording and will necessitate re-televising at the Contractor's expense. Televising shall be done one section at a time.

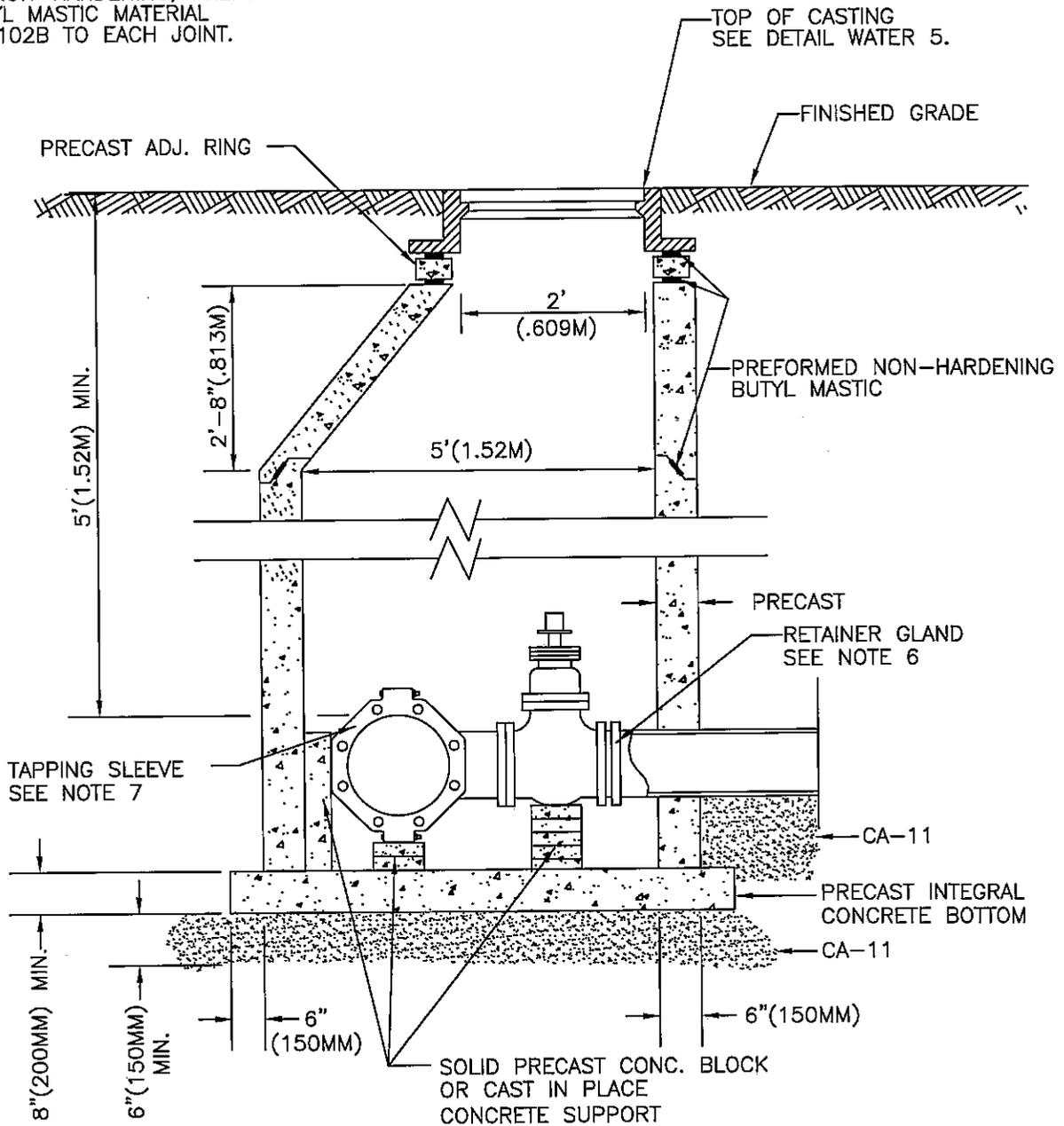
Television Inspection Report: The inspection report shall be stored in a relational database management system that employs relationships to increase data integrity and reduce data storage space. This report shall be computer-generated and will provide commentary on still images and fault areas. The report will also describe all other pertinent findings regarding service connections, breaks or cracks in tiles, root growth, infiltration and other items of interest.

All inspection information (digitally recorded video, still images and computer-generated reports) shall be turned over to the Owner for archival and future review purposes with seven (7) working days after inspection.

Method of Measurement: This work shall be measured for payment by actual feet of sewer video recorded from center of manhole to center of manhole.

Basis for Payment: This work will be paid for at the contract unit price per lineal foot for TELEVISION INSPECTION OF SEWER, of specified size, which shall include all costs in full for labor, materials, equipment, cleaning, and all incidental work necessary to complete the work as specified. No additional compensation shall be paid the Contractor for repairing damage during construction.

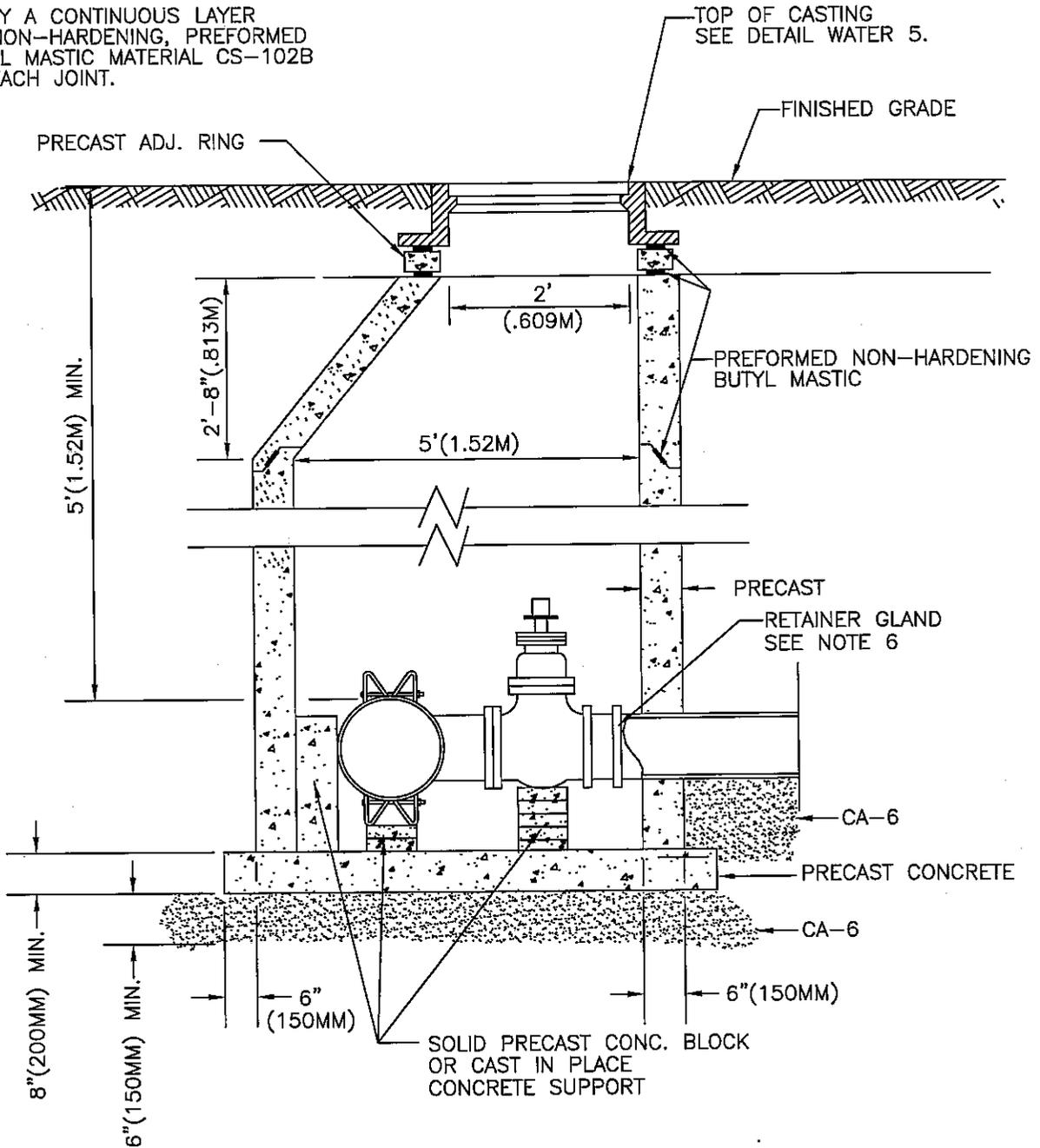
APPLY A CONTINUOUS LAYER OF NON-HARDENING, PREFORMED BUTYL MASTIC MATERIAL CS-102B TO EACH JOINT.



- 1) NO MORE THAN 12"(300MM) OF ADJUSTING RINGS MAY BE USED; HOWEVER NO MORE THAN ONE 2"(50MM) ADJUSTING RING OR TWO RINGS IN TOTAL MAY BE USED.
- 2) VALVE SHALL ALIGN WITH THE CENTER OF VAULT OPENINGS.
- 3) CONES SHALL BE ECCENTRIC.
- 4) BUTTERFLY VALVES REQUIRE ECCENTRIC CONES.
- 5) WHEN ADJUSTMENTS ARE NECESSARY, THEY WILL BE PERFORMED WITH A MAXIMUM OF TWO (2) PRECAST CONCRETE RINGS SET IN A BED OF PREFORMED NON-HARDENING MASTIC (CS-102B OR APPROVED EQUAL) TO A MAXIMUM HEIGHT OF 12"(300MM). (ONE 2"(50MM) RING MAX.)
- 6) USE MEGALUG SERIES 1100 OR FORD UNIFLANGE SERIES 1400 RETAINER GLANDS.
- 7) TAPPING SLEEVES SHALL BE CAST IRON MECHANICAL JOINT (CLOW F-5205 OR EQUAL).

Title: CAST IRON SLEEVE PRESSURE TAP VALVE VAULT DETAIL		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 2/1/99	REV:	Detail: WATER 8
	SCALE: NTS		

APPLY A CONTINUOUS LAYER OF NON-HARDENING, PREFORMED BUTYL MASTIC MATERIAL CS-102B TO EACH JOINT.



- 1) NO MORE THAN 12"(300MM) OF ADJUSTING RINGS MAY BE USED: HOWEVER NO MORE THAN ONE 2"(50MM) ADJUSTING RING OR TWO RINGS IN TOTAL MAY BE USED.
- 2) VALVE SHALL ALIGN WITH THE CENTER OF VAULT OPENINGS.
- 3) CONES SHALL BE ECCENTRIC.
- 4) BUTTERFLY VALVES REQUIRE ECCENTRIC CONES.
- 5) WHEN ADJUSTMENTS ARE NECESSARY, THEY WILL BE PERFORMED WITH A MAXIMUM OF TWO (2) PRECAST CONCRETE RINGS SET IN A BED OF PREFORMED NON-HARDENING MASTIC (CS-102B OR APPROVED EQUAL) TO A MAXIMUM HEIGHT OF 12"(300MM).
- 6) USE MEGALUG SERIES 1100 OR FORD UNIFLANGE SERIES 1400 RETAINER GLANDS.
- 7) TAPPING SLEEVES SHALL BE HEAVY DUTY STAINLESS STEEL WITH STAINLESS STEEL BOLTS AND NUTS (CASCADE CST-EX, FORD FTSS,...).

Title:
STAINLESS STEEL SLEEVE PRESSURE TAP
VALVE VAULT DETAIL

CITY OF NAPERVILLE STANDARD DETAIL

Approved By:

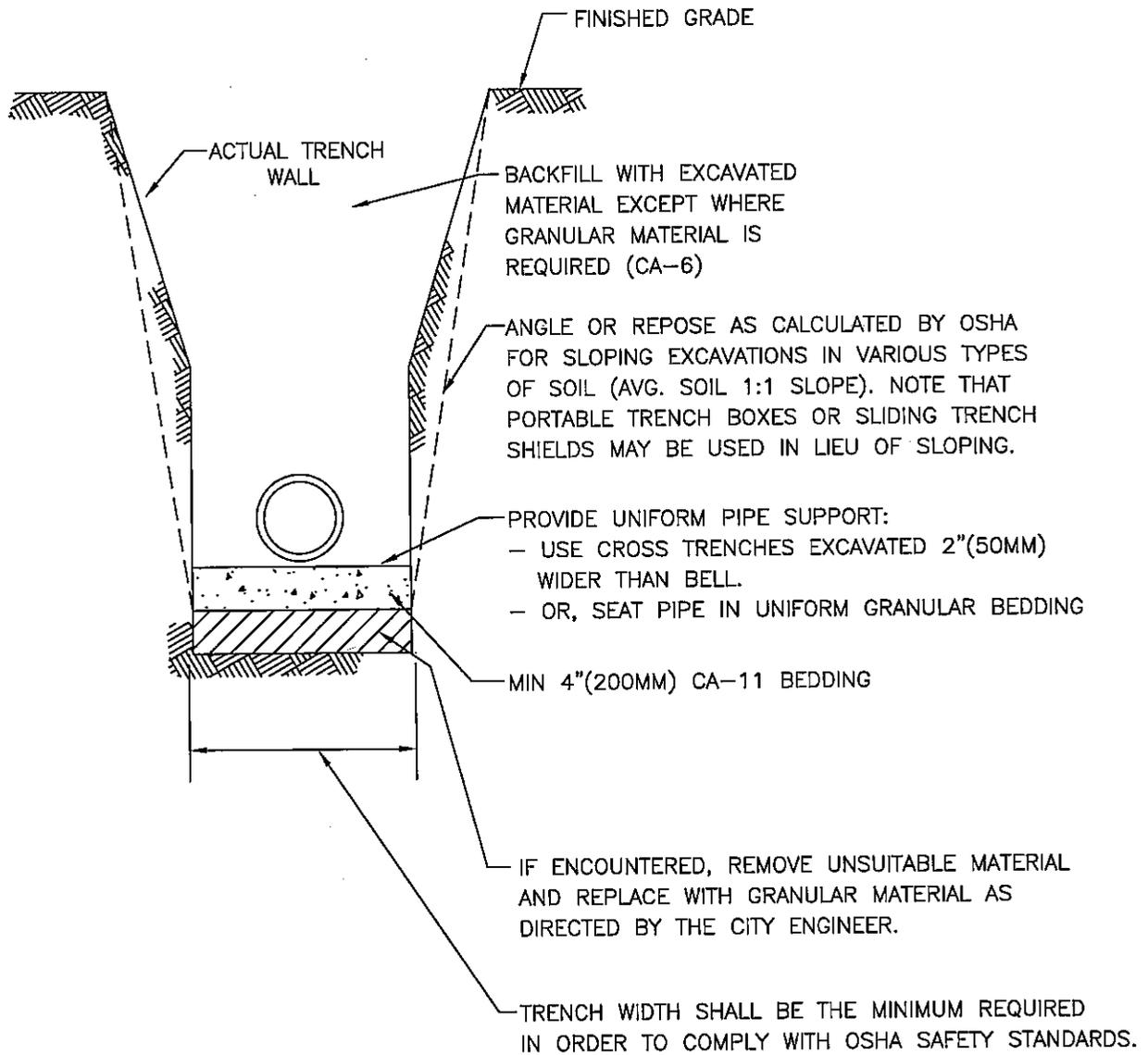
DATE: 2/1/99

REV:

Detail:

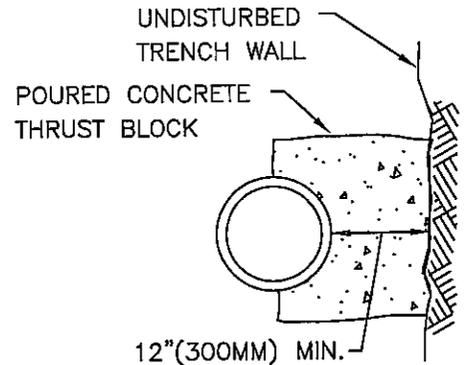
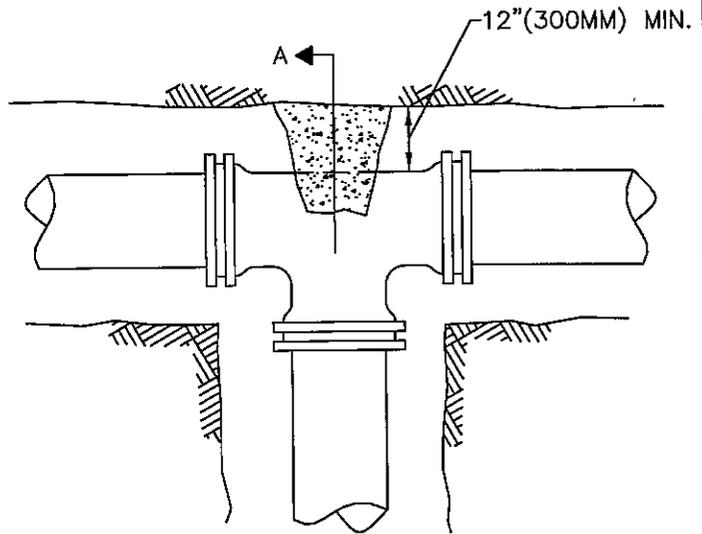
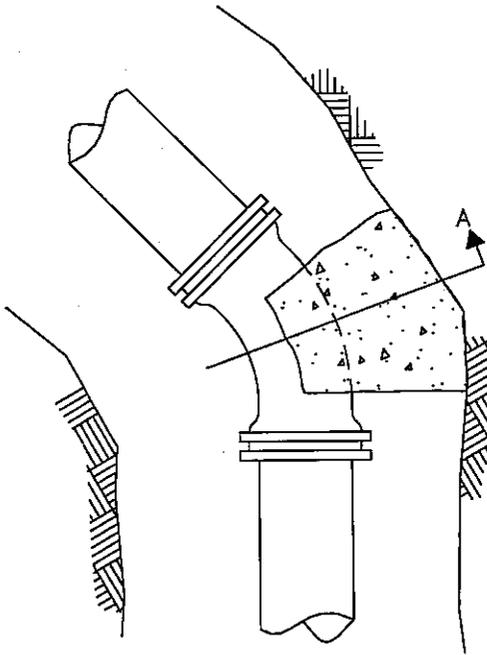
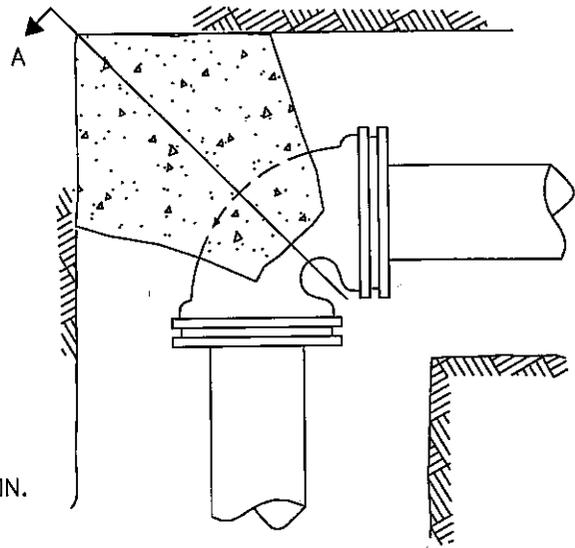
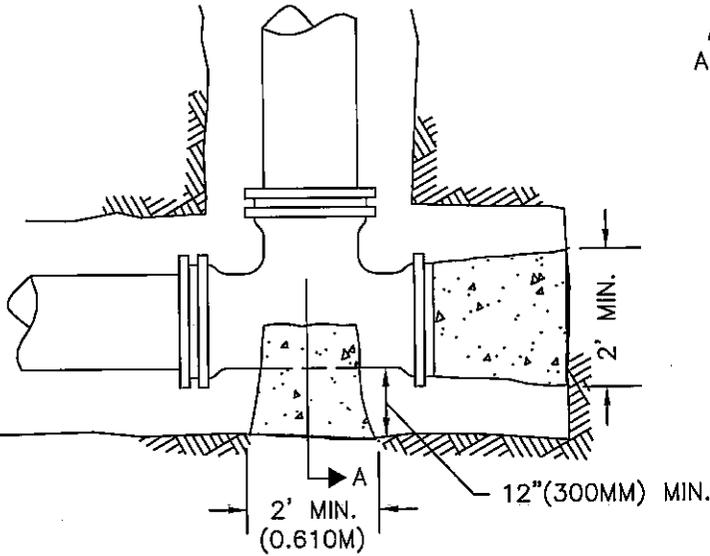
SCALE: NTS

WATER 9



IN PAVED AREAS ALL TRENCHES SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

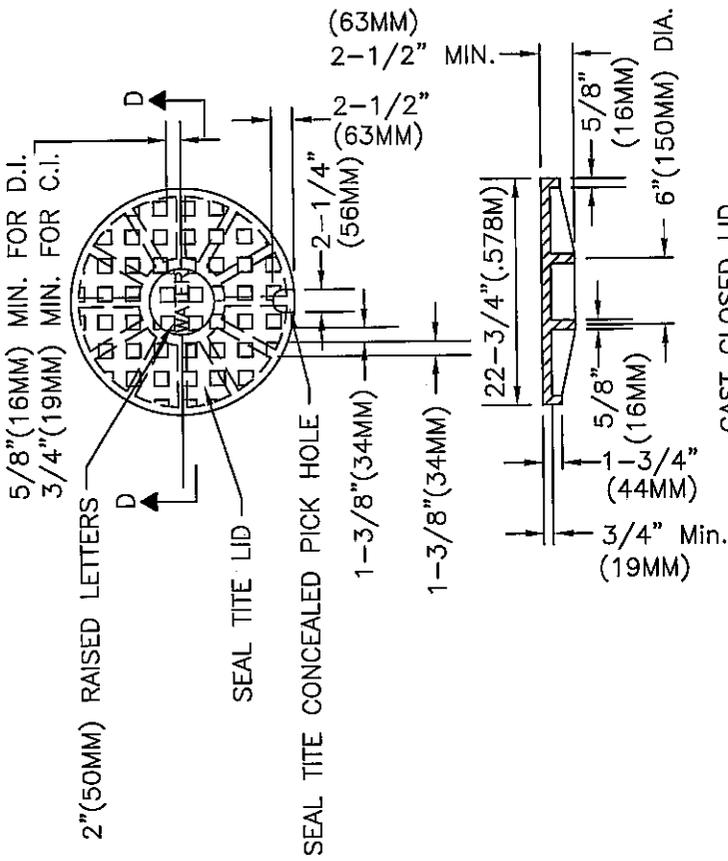
Title:		CITY OF NAPERVILLE STANDARD DETAIL	
TRENCH SECTION FOR WATERMAIN			
Approved By:	DATE: 6/12/2001	REV:	Detail: WATER 7
	SCALE: NTS		



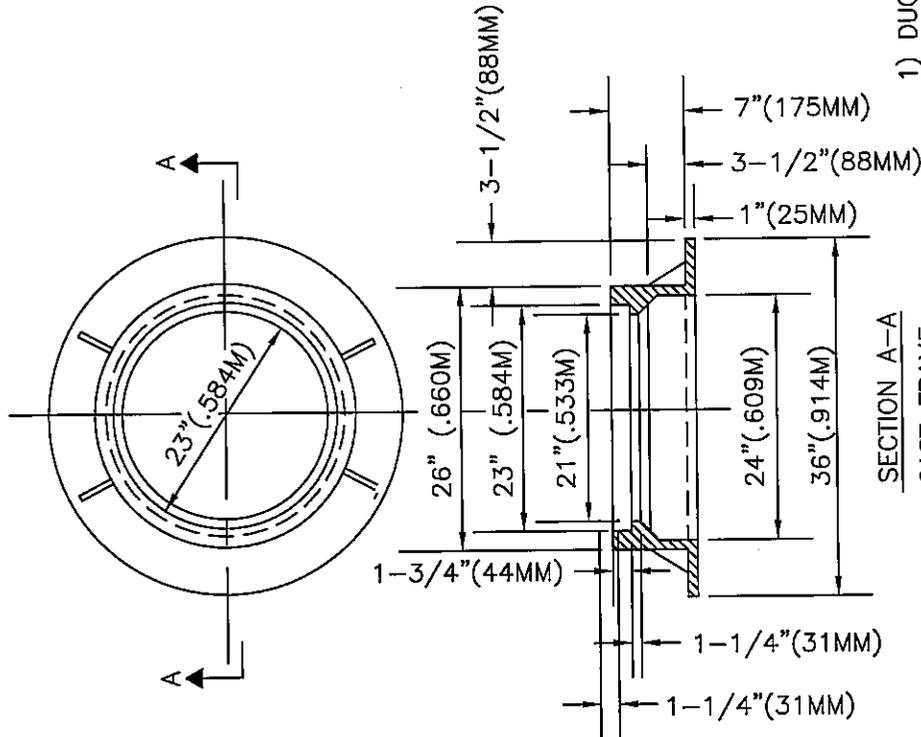
SECTION A

THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, & AT POINTS SPECIFIED BY THE ENGINEER SHALL BE CLASS "SI" CONCRETE A MINIMUM OF 12"(300MM) THICK, PLACED BETWEEN SOLID GROUND & THE FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT THE PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS. THRUST BLOCKS SHALL BE PLACED AT BENDS OF 11-1/4' OR MORE.

Title: THRUST BLOCK INSTALLATION		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 2/1/99	REV:	Detail: WATER 6
	SCALE: NTS		



CAST CLOSED LID
(SEAL TITE CONCEALED PICK HOLE)



SECTION A-A
CAST FRAME

- 1) DUCTILE IRON SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
- 2) ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.
- 3) THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
- 4) ALTERNATIVE TO DUCTILE IRON LID, IRON LID MAY BE USED.
- 5) DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN 1022-3 OR NEENAH R-1772-C.
- 6) LIDS AND FRAMES TO MEET AASHTO H-20 LOADING SPECIFICATIONS.
- 7) ALL CASTINGS SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT.

Title: VALVE VAULT
FRAME & COVER

CITY OF NAPERVILLE STANDARD DETAIL

Approved By:

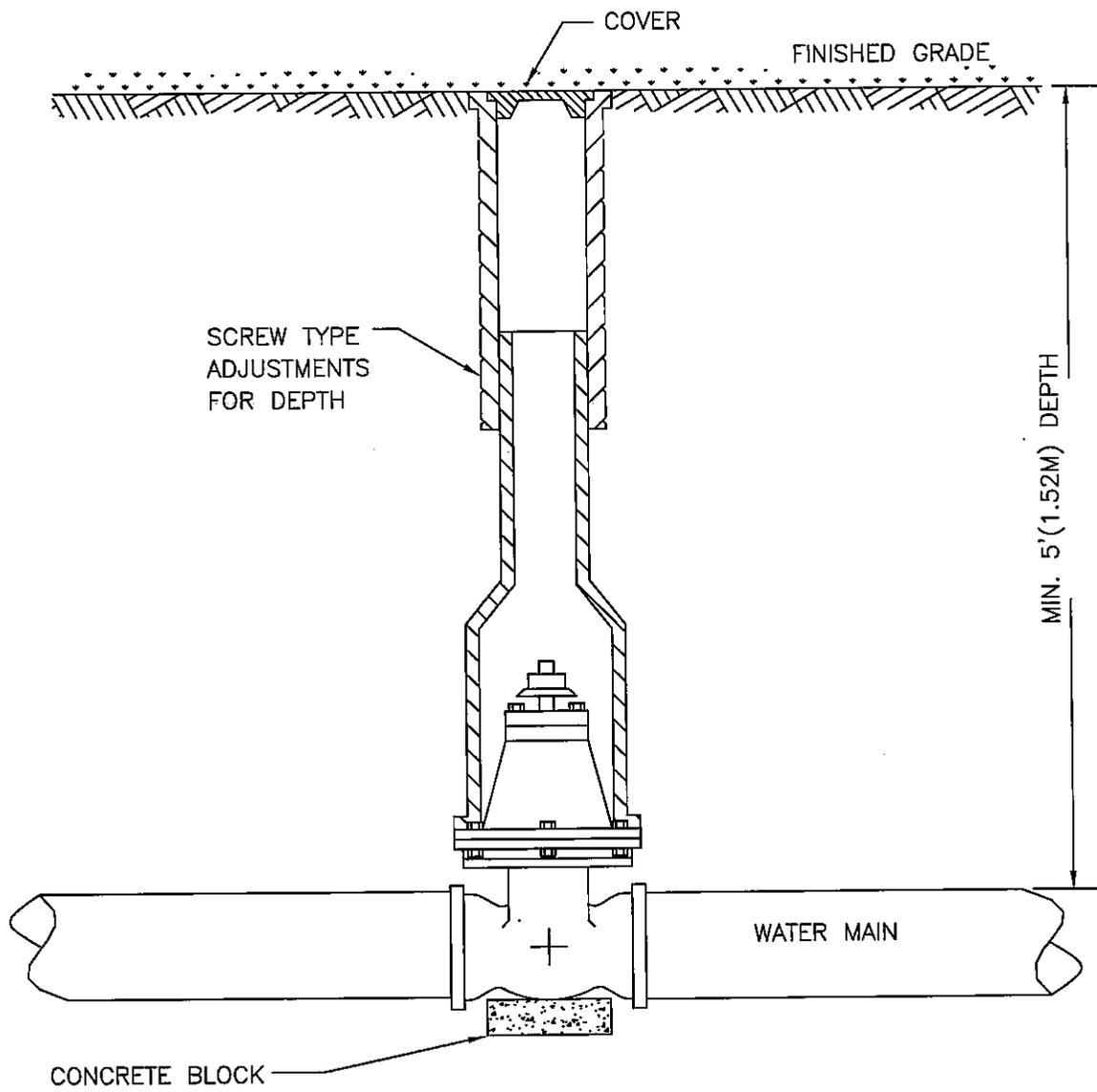
DATE: 9/15/99

REV:

Detail:

SCALE: NTS

WATER 5



NOTE:
 VALVE BOXES ARE NOT ALLOWED IN PAVED AREAS WITHOUT PRIOR
 APPROVAL FROM THE NAPERVILLE DEPARTMENT OF PUBLIC UTILITIES

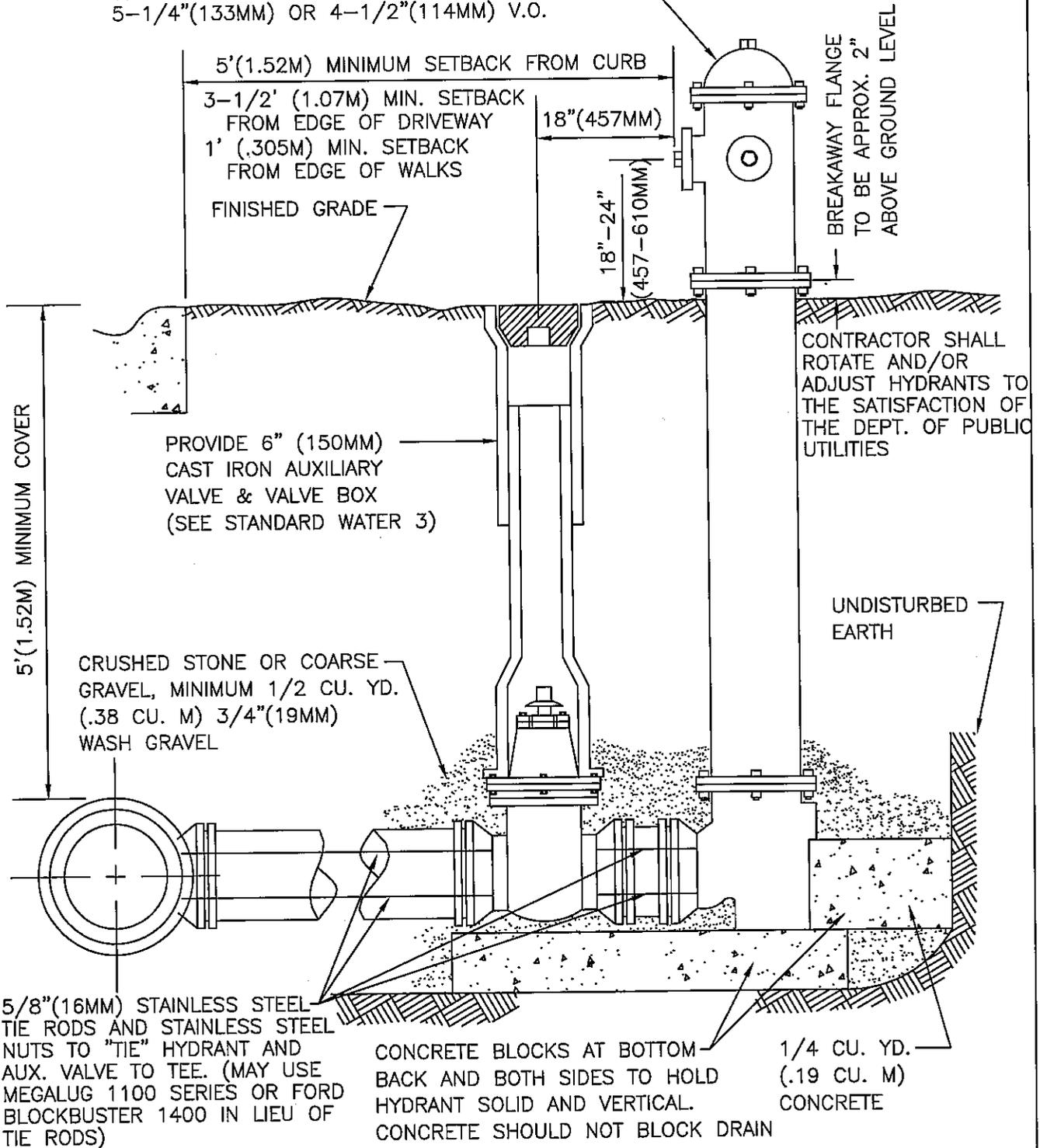
Title: VALVE BOX INSTALLATION	CITY OF NAPERVILLE STANDARD DETAIL		
Approved By:	DATE: 6/12/2001	REV:	Detail: WATER 3
	SCALE: NTS		

PERMITTED TYPES:

- WATEROUS PACER WB-67
5-1/4"(133MM)
- CLOW F-2500
5-1/4"(133MM)
- MUELLER A-421
5-1/4"(133MM) OR 4-1/2"(114MM) V.O.

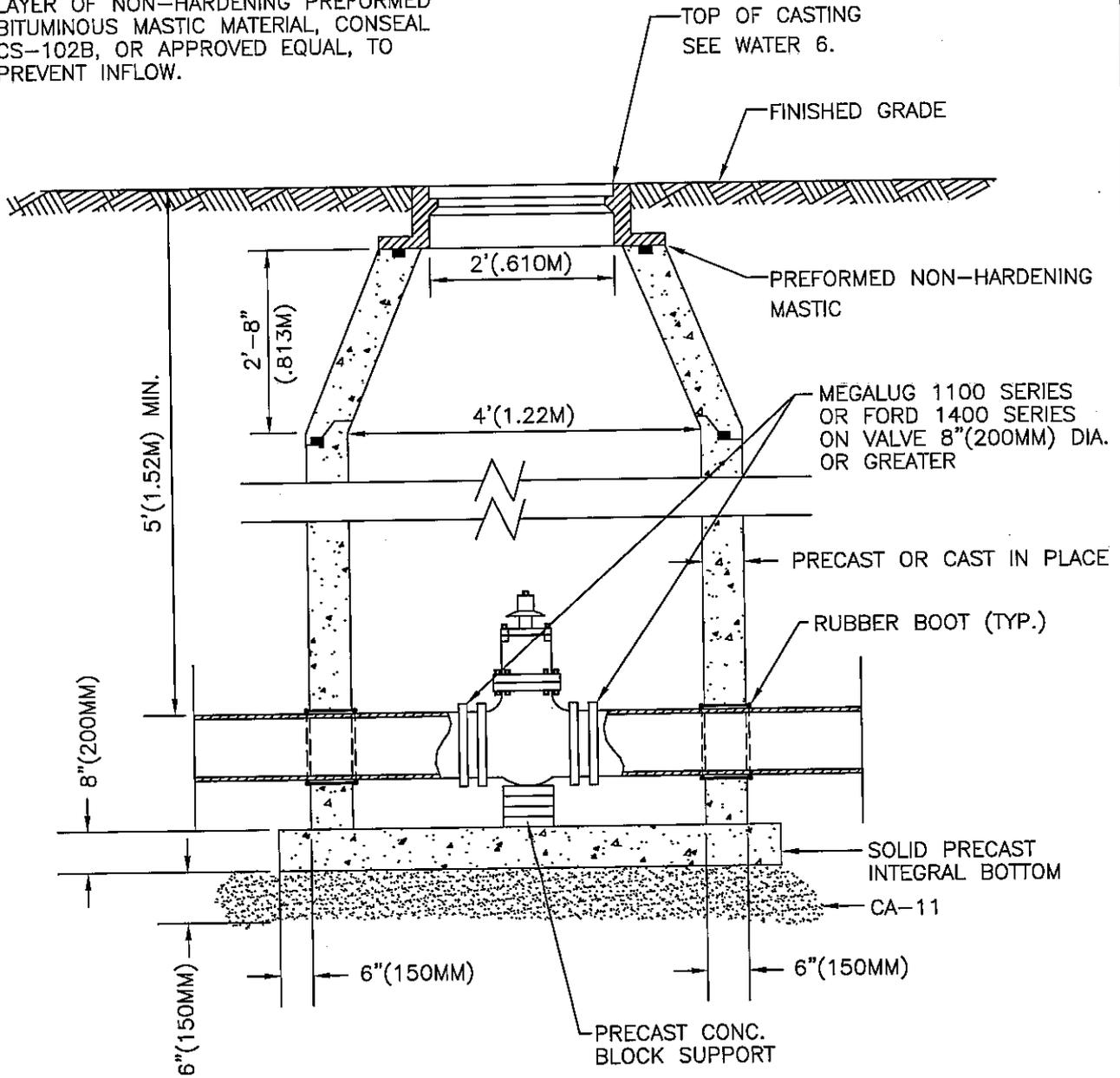
NOTES:

1. CHAIN AND CHAIN HOOKS SHALL BE REMOVED FROM HYDRANT
2. HYDRANT SHALL BE PAINTED WITH 2 COATS OF TNEME-GLOSS SAFETY ORANGE



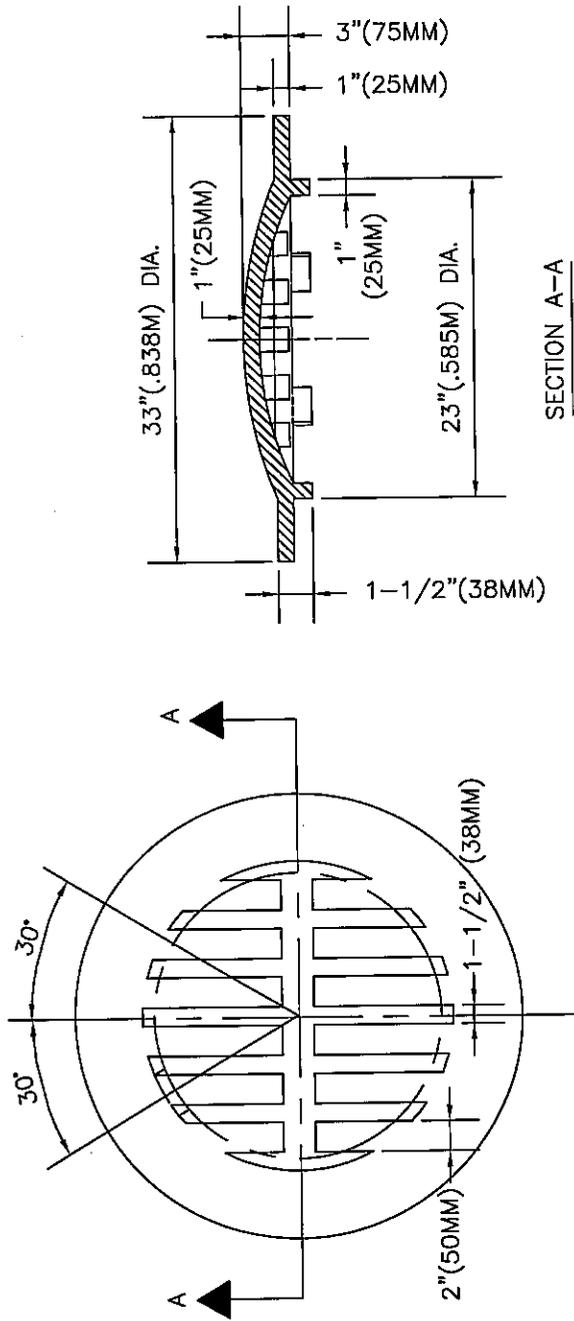
Title: HYDRANT SETTING		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 6/12/2001	REV:	Detail: WATER 2
	SCALE: NTS		

AT EACH JOINT, APPLY A CONTINUOUS LAYER OF NON-HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL, CONSEAL CS-102B, OR APPROVED EQUAL, TO PREVENT INFLOW.



- 1) VALVE MUST ALIGN WITH THE CENTER OF VAULT OPENINGS.
- 2) CONES MUST BE CONCENTRIC WITH VALVES 12" (300MM) AND SMALLER.
- 3) BUTTERFLY VALVES AND PRESSURE TAP VALVES REQUIRE ECCENTRIC CONES.
- 4) WHEN ADJUSTMENTS ARE NECESSARY, THEY SHALL BE PERFORMED WITH A MAXIMUM OF TWO (2) PRECAST CONCRETE RINGS SET IN A BED OF PREFORMED NON-HARDENING MASTIC MATERIAL (CONSEAL CS-102B, OR APPROVED EQUAL) TO A MAXIMUM HEIGHT OF 12" (300MM).

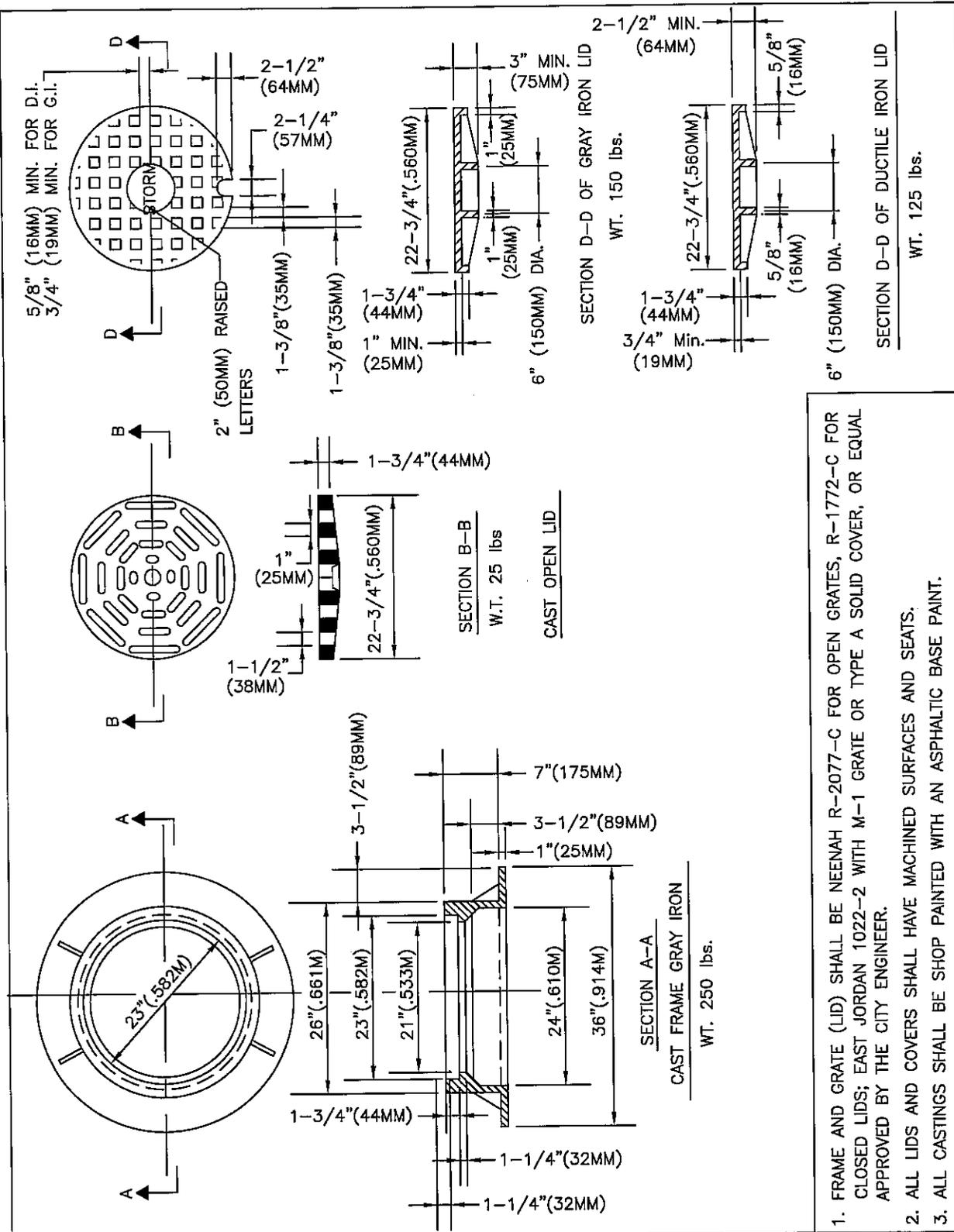
Title:		CITY OF NAPERVILLE STANDARD DETAIL	
VALVE VAULT			
Approved By:	DATE: 2/1/99	REV:	Detail: WATER 4
	SCALE: NTS		



SECTION A-A

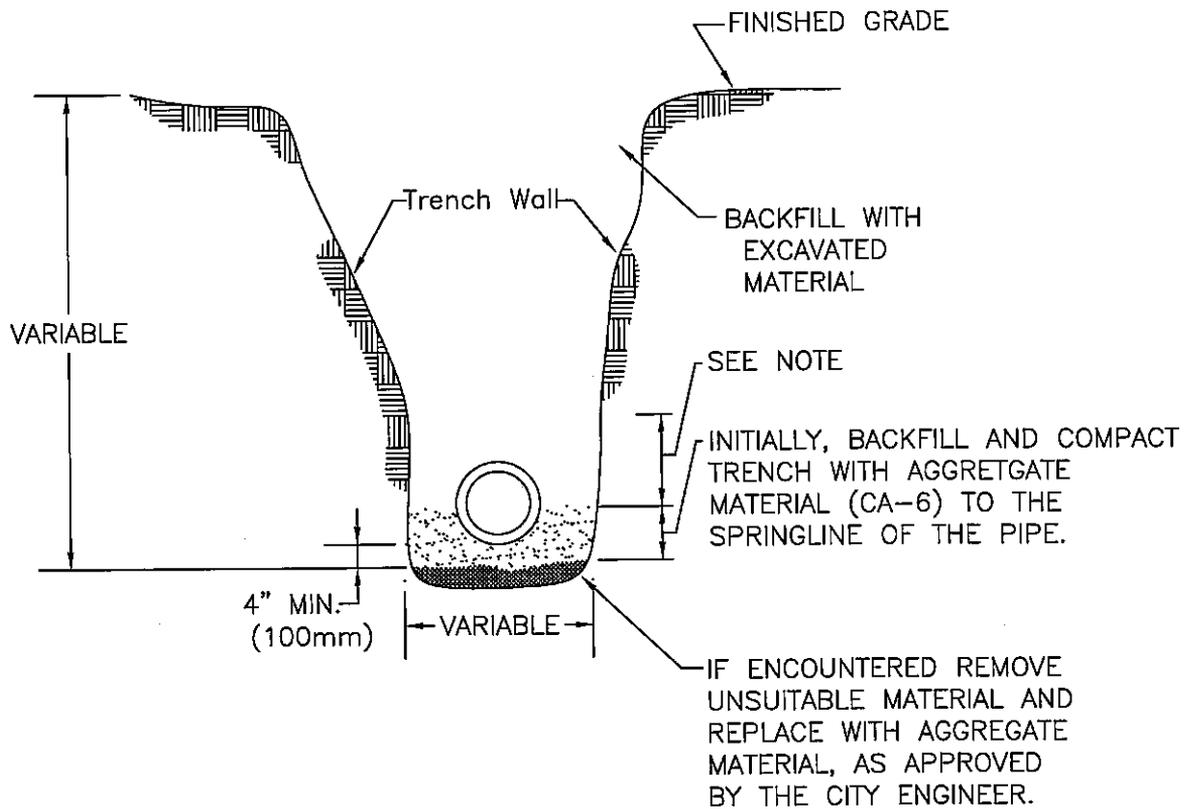
1. BEEHIVE GRATE SHALL BE NEEHAH R4340B, EAST JORDAN 6527, OR EQUAL APPROVED BY THE CITY ENGINEER
2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.

Title: BEEHIVE GRATE TYPE 1		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 9/15/99	REV:	Detail: STORM 16
	SCALE: NTS		



1. FRAME AND GRATE (LID) SHALL BE NENNAH R-2077-C FOR OPEN GRATES, R-1772-C FOR CLOSED LIDS; EAST JORDAN 1022-2 WITH M-1 GRATE OR TYPE A SOLID COVER, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL LIDS AND COVERS SHALL HAVE MACHINED SURFACES AND SEATS.
3. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.

Title: FRAME & LID TYPE 1		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 9/15/99	REV:	Detail: STORM 15
	SCALE: NTS		



NOTE: FOR PVC AND HDPE PIPE, BACKFILL WITH AGGREGATE MATERIAL (CA-6) TO 6" (150mm) ABOVE THE TOP OF PIPE.

Title: STORM SEWER TRENCH SECTION
IN NON-PAVED AREAS

CITY OF NAPERVILLE STANDARD DETAIL

Approved By:

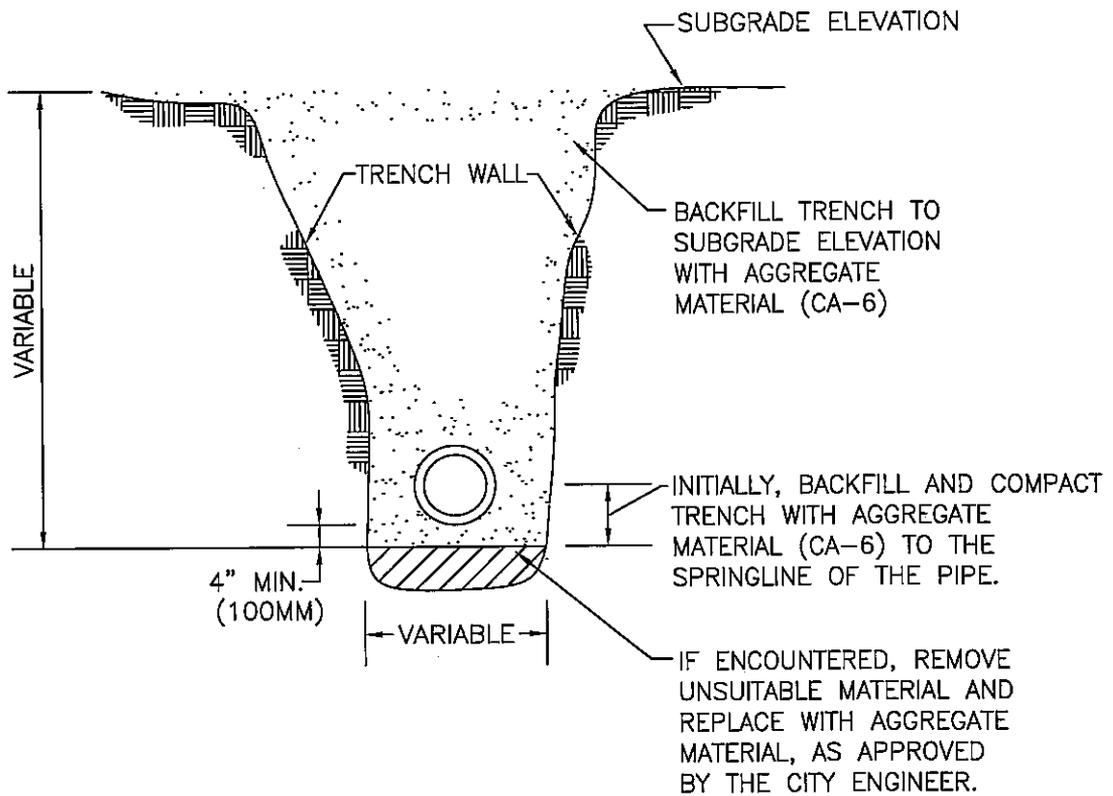
DATE: 9/15/99

REV:

Detail:

SCALE: NTS

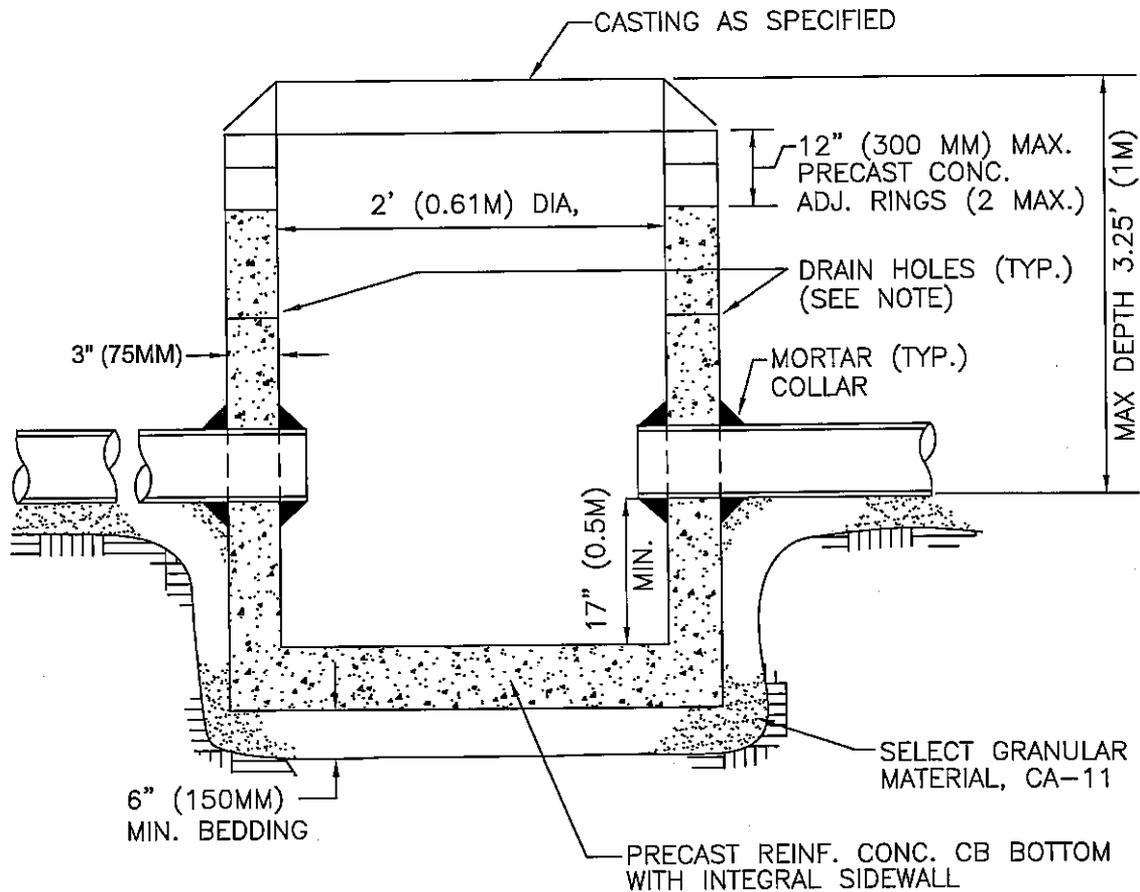
STORM 11



NOTE

1. TRENCH BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. THIS DETAIL SHALL BE USED WHEREVER THE TRENCH IS MADE IN THE PROPOSED ROADWAY SUBGRADE, AND WHEREVER THE INNER EDGE OF THE TRENCH IS CLOSER THAN 2' (.610M) TO THE EDGE OF THE PROPOSED PAVEMENT, CURB AND GUTTER, AND SIDEWALK.

Title: STORM SEWER TRENCH SECTION IN PAVED AREAS		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 2/24/98	REV:	Detail: STORM 10
	SCALE: NTS		

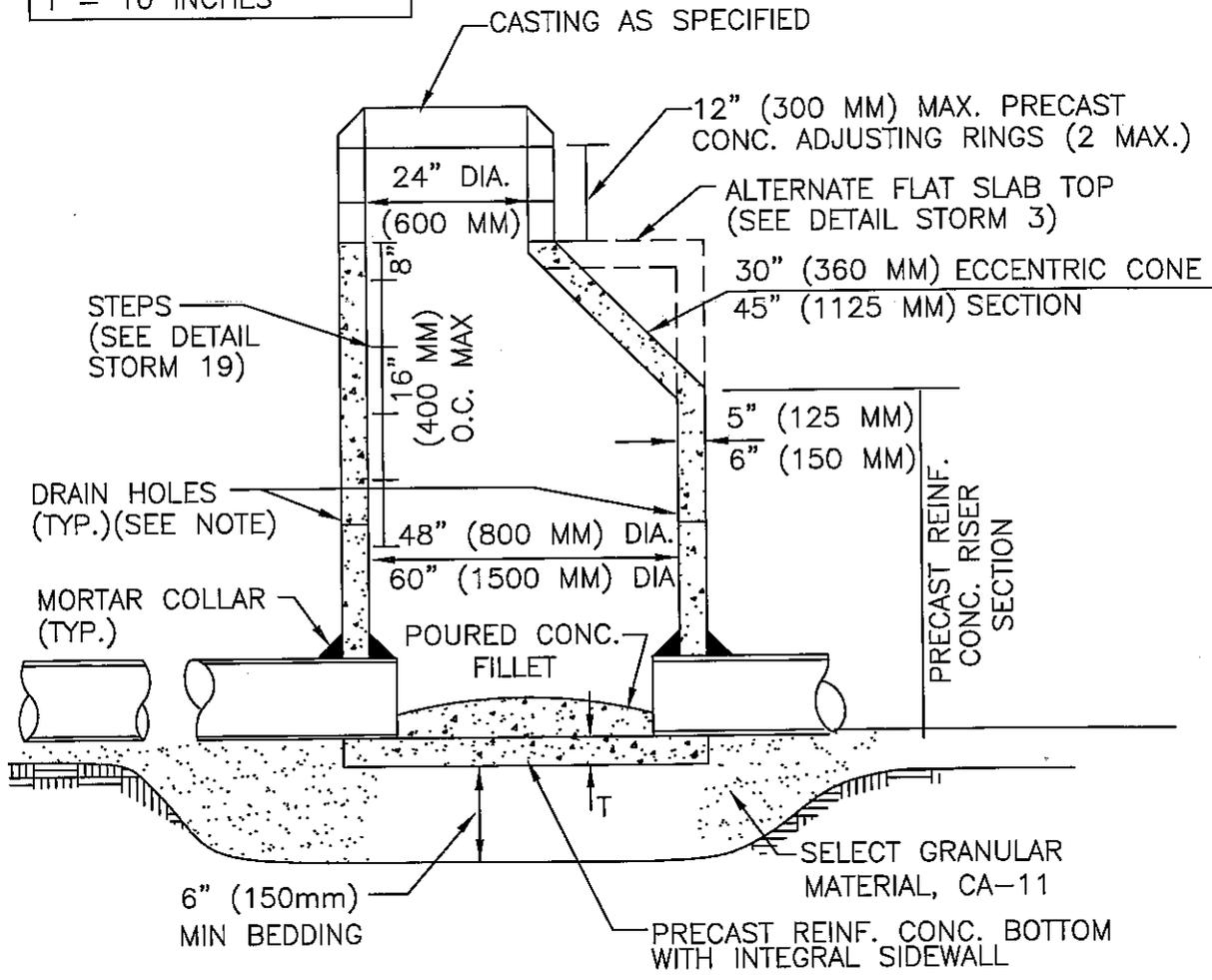


NOTE

A MINIMUM OF 4 PRECAST OR DRILLED 25 MM (1") DIAMETER HOLES SHALL BE PROVIDED WITHIN 300 MM (1') OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 300 MM (1') BY 300 MM (1') SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

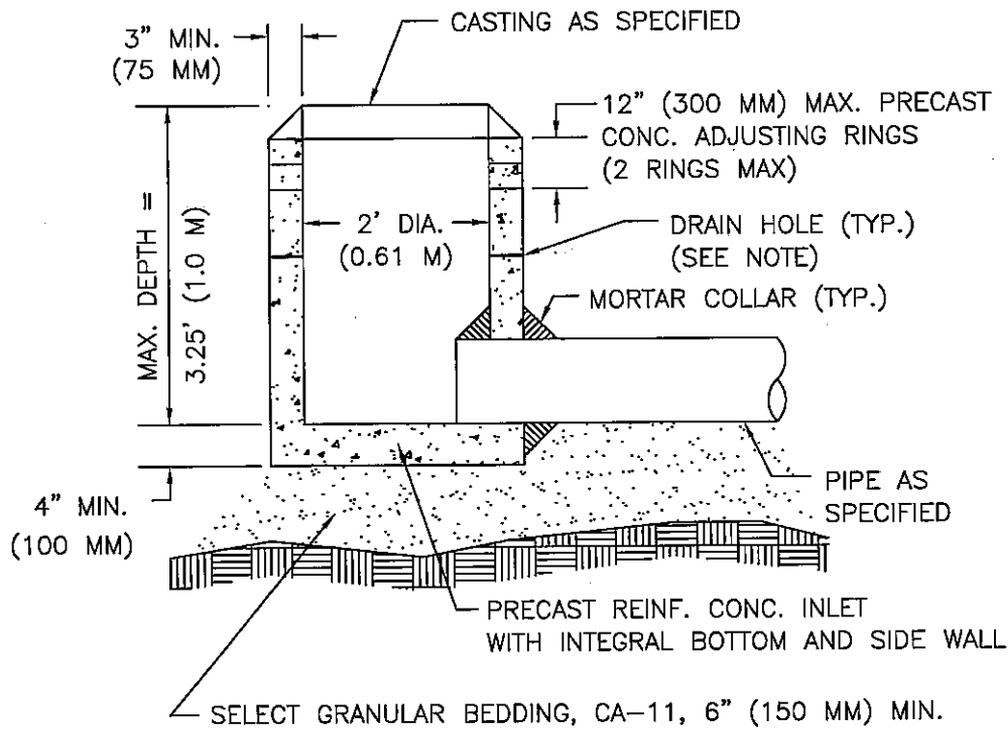
Title: CATCHBASIN TYPE C		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 6/12/2001	REV:	Detail: STORM 5
	SCALE: NTS		

WHEN MANHOLE DEPTH IS 12 FT (4m) OR LESS
 T = 8 INCHES
 WHEN MANHOLE DEPTH IS OVER 12 FT.
 T = 10 INCHES



NOTE
 A MINIMUM OF 4 PRECAST OR DRILLED 25 MM (1") DIAMETER HOLES SHALL BE PROVIDED WITHIN 300 MM (1') OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 300 MM (1') BY 300 MM (1') SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

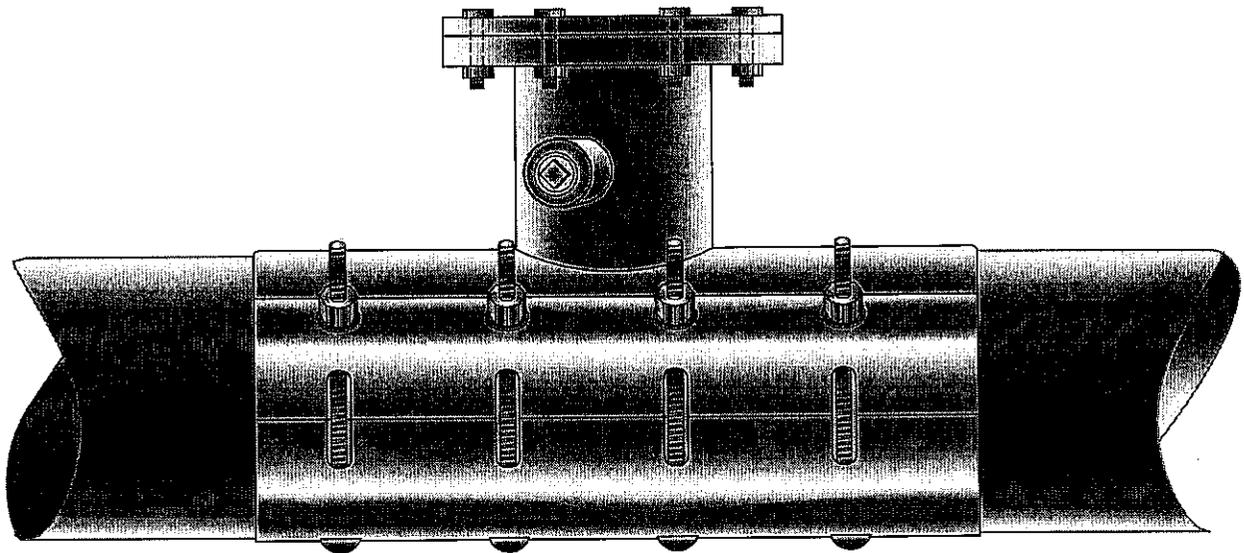
Title: MANHOLE TYPE A		CITY OF NAPERVILLE STANDARD DETAIL	
Approved By:	DATE: 6/12/2001	REV:	Detail: STORM 2
	SCALE: NTS		



NOTE

IN PAVED AREAS A MINIMUM OF 4 PRECAST OR DRILLED 25 MM (1") DIAMETER HOLES SHALL BE PROVIDED WITHIN 300 MM (1') OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 300 MM (1') BY 300 MM (1') SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

Title:		CITY OF NAPERVILLE STANDARD DETAIL	
INLET TYPE A			
Approved By:	DATE: 6/12/2001	REV:	Detail: STORM 1
	SCALE: NTS		



1. SLEEVE TO BE PRESSURE RATED AT 150 PSI WORKING PRESSURE AND 225 PSI TEST PRESSURE.
2. CONSTRUCTION TO BE **ALL STAINLESS T-304**, 18-8 STAINLESS STEEL , 14 GAUGE (MINIMUM).
3. GASKETS TO PROVIDE 360 DEGREE PIPE COVERAGE IN ADDITION TO A FULL CIRCUMFERENCE BRANCH SEAL GASKET.
4. A STAINLESS STEEL TEST PORT AND PLUG SHALL BE PROVIDED AND THE SLEEVE INSTALLATION SHALL BE TESTED PRIOR TO CUTTING THE EXISTING PIPE.
5. V-LUGS SHALL BE FABRICATED TO THE SLEEVE AND DROP-IN STAINLESS STEEL BOLTS, NUTS AND WASHERS (18-8 MINIMUM GRADE) PROVIDED. NUTS SHALL BE COATED TO PREVENT GALLING.
6. PROVIDE AS-BUILT FOR LOCATION AND ELEVATION OF TOP OF FLANGE
7. ACCEPTABLE STAINLESS STEEL LINE STOP SLEEVES WOULD BE SEVERN TRENT PREMIER LINE STOP FITTING OF ALL STAINLESS STEEL CONSTRUCTION WITH DROP-IN BOLT OPTION AND SMITH BLAIR MODEL 685 ALL STAINLESS STEEL LINE STOP TAPPING SLEEVE WITH. ALL BOLTS, NUTS, AND WASHERS AND BLIND FLANGES TO BE 18-8 TYPE 304 STAINLESS. STOPPLE (COMPLETION) PLUG TO BE DUCTILE IRONOR STAINLESS STEEL.

Title: LINE STOP TAPPING SLEEVE	CITY OF NAPERVILLE STANDARD DETAIL		
Approved By:	DATE: 12/2005	REV:	Detail: WATER
	SCALE: NTS		

60

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue, East; Post Office Box 19276; Springfield, IL 62794-9276

Division of Public Water Supplies

Telephone 217/782-1724

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: NAPERVILLE (DuPage County-0434670)

Permit Issued to:
Mayor and Council
400 S. Eagle Street, P.O. Box 3020
Naperville, IL 60566-7020

PERMIT NUMBER: 1146-FY2007
Proposed

DATE ISSUED: January 3, 2007
PERMIT TYPE: Water Main

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated, and are identified as follows:

FIRM: URS Corporation
NUMBER OF PLAN SHEETS: 41
TITLE OF PLANS: "Illinois Route 59 Pedestrian Bridge"

PROPOSED IMPROVEMENTS:

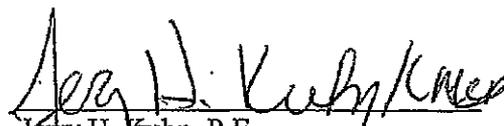
Install 111 lineal feet of 16-inch water main, 5 lineal feet of 12-inch water main, and 5 lineal feet of 6-inch water main

ADDITIONS CONDITIONS:

1. There are no further conditions to this permit.

JHK:ECA:dsa

cc: ✓ URS Corporation
Elgin Region
DuPage County Health Department.


Jerry H. Kuhn, P.E.
Manager Permit Section
Division of Public Water Supplies

PEDESTRIAN TRUSS SUPERSTRUCTURE

Effective: January 13, 1998

Revised: January 1, 2007

Description: This work shall consist of the design, fabrication, storage, delivery and erection of a welded steel, pedestrian truss superstructure. Also included in this work shall be the furnishing and installation of a deck, all bearings, anchors and/or retainers, railings, fencing and miscellaneous items as indicated on the plans.

Materials:

Truss. Structural steel shall conform to the requirements of Section 1006 of the Standard Specifications, ASTM A847 for cold formed welded square and rectangular tubing, AASHTO M270 Grade 50W (M270M 345W) for atmospheric corrosion resistant structural steel, as applicable, unless otherwise shown on the plans or approved by the Engineer. The minimum design parameters shall be according to AASHTO "Guide Specifications for Design of Pedestrian Bridges". All structural steel field connections shall be bolted with high strength bolts. High strength bolts, including suitable nuts and plain hardened washers, shall conform to the requirements of Article 1006.08 of the Standard Specifications.

Deck. The deck type shall be as specified on the plans. The materials shall comply with the applicable portions of the materials section of the Standard Specifications.

When specified for use, the concrete deck and stay-in-place forms shall be non composite. Metal Forms shall have a minimum thickness of 0.0359 in. (912 microns) or 20 Gage and shall be galvanized per ASTM A653 (A653M) with a G165 (Z350) min. coating designation.

Railing. The railing shall consist of a smooth rub rail, a toe plate and misc. elements, all located on the inside face of the truss.

Bearings. The bearing shall be designed and furnished as detailed in the plans, in the absence of details, the bearings details shall be as specified by the bridge manufacturer.

When specified for use, elastomeric bearings shall be according to Article 1083 of the Standard Specifications. Teflon surfaces shall be per Article 1083.02(b) of the Standard Specification and shall be bonded to the bearing plate.

Suppliers. The manufacturer shall be a company specializing in the design and manufacture of pedestrian bridges. The manufacturer shall be certified by AISC according to Article 106.08(b) of the Standard Specifications. The manufacturer shall provide information, to the satisfaction of the Engineer, demonstrating it has successfully provided bridges of similar scope for a minimum of 10 projects. The submittals demonstrating experience shall include names, addresses and telephone numbers of the owners of the structures. This submittal shall be made at the time of the preconstruction conference.

Potential bridge suppliers include but are not limited to:

Continental Custom Bridge Company
8301 State Hwy 29 North
Alexandria, Minnesota 56308
800-328-2047, FAX 320-852-7067

Steadfast Bridges
4021 Gault Ave South
Fort Payne, Alabama 35967
800-749-7515, FAX 256-845-9750

Excel Bridge Manufacturing Company
12001 Shoemaker Avenue
Santa Fe Springs, California 90670
800-548-0054, FAX 562-944-4025

Wheeler Consolidated
9330 James Avenue South
Bloomington, MN 55431
800-328-3986, FAX 952-929-2909

Decker, Incorporated
P.O. Box 4075
Elmira, New York 14904
607-733-1559, FAX 607-733-0296

Anderson Bridges
111 Willow Street
Colfax, WI 54730
715-962-2800, FAX 715-962-2801

Design:

The superstructure shall conform to the clear span, clear width, and railing configuration shown on the contract plans. The AASHTO "Guide Specifications for Design of Pedestrian Bridges" shall govern the design. The design loads shall be as specified by the AASHTO Guide Specification unless otherwise specified in the Contract plans.

The railings shall be designed per AASHTO Design Specifications for bicycle railings. Smooth rub rails shall be attached to the bicycle railing and located at a bicycle handlebar height of 3.5 ft. (1.1 m) above the top of the deck.

Prior to beginning construction or fabrication, the Contractor shall submit design calculations and six sets of shop drawings for each pedestrian bridge to the Engineer for review and approval. In addition, for bridges with any span over 150 ft. (46 m), or over a State or Federal

Route, or within the States Right-of-Way, a copy of the shop drawings will be reviewed and approved for structural adequacy, by the Bureau of Bridges and Structures prior to final approval of shop drawings. The shop drawings shall include all support reactions for each load type. The following certification shall be placed on the first sheet of the bridge shop plans adjacent to the seal and signature of the Structural Engineer:

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans and complies with the requirements of the Contract and the current 'AASHTO Guide Specifications for Design of Pedestrian Bridges'."

The substructure is designed per AASHTO and based on the assumed truss loads shown on the plans. If the manufacturer's design exceeds those loads and/or the substructure needs to be adjusted to accommodate the truss superstructure chosen, then the Contractor shall submit the redesign to the Engineer for approval prior to ordering any material or starting construction. All design calculations, shop drawings and redesigned substructure drawings shall be sealed by a Structural Engineer licensed in the State of Illinois.

Construction: Truss erection procedures shall be according to the manufacturer's instructions. The deck shall be placed according to the applicable Sections of the Standard Specifications.

When weathering steel is used, all structural steel shall be prepared according to the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel."

When painting is specified, all structural steel shall be cleaned and painted according to the Special Provision for "Cleaning and Painting New Metal Structures". The color of the finish coat shall be as specified in the plans.

Method of Measurement: The pedestrian truss superstructure will be measured in square feet (square meters) of completed and accepted bridge deck within the limits of the truss superstructure.

Basis of Payment: The pedestrian superstructure will be paid for at the contract unit price per square foot (square meter) for "PEDESTRIAN TRUSS SUPERSTRUCTURE."

MECHANICALLY STABILIZED EARTH RETAINING WALLS

Effective: February 3, 1999

Revised: January 1, 2007

Description. This work shall consist of preparing the design, furnishing the materials, and constructing the mechanically stabilized earth (MSE) retaining wall to the lines, grades and dimensions shown in the contract plans and as directed by the Engineer.

General. The MSE wall consists of a concrete leveling pad, precast concrete face panels, a soil reinforcing system, select fill and concrete coping (when specified). The soil reinforcement shall have sufficient strength, quantity, and pullout resistance, beyond the failure surface within the select fill, as required by design. The material, fabrication, and construction shall comply with this Special Provision and the requirements specified by the supplier of the wall system selected by the Contractor for use on the project.

The MSE retaining wall shall be one of the following pre-approved wall systems:

Advanced Reinforced Soil: Tensar Earth Technologies, Inc.

Hilfiker 5x5 Panel Wall: Hilfiker Retaining Walls

MSE Plus 5x6 Panel System: SSL Construction Products

Reinforced Earth: The Reinforced Earth Company

Retained Earth: Foster Geotechnical

Strengthened Soil: Shaw Technologies, Inc.

Tricon Retained Soil Wall System: Tricon Precast LTD.

Pre-approval of the wall system does not include material acceptance at the jobsite.

Submittals. The wall system supplier shall submit complete design calculations and shop drawings to the Department for review and approval no later than 90 days prior to beginning construction of the wall. All submittals shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

- (a) Plan, elevation and cross section sheet(s) for each wall showing the following:
 - (1) A plan view of the wall indicating the offsets from the construction centerline to the face of the wall at all changes in horizontal alignment. The plan view shall show the limits of soil reinforcement and stations where changes in length and/or size of reinforcement occur. The centerline shall be shown for all drainage structures or pipes behind or passing through and/or under the wall.
 - (2) An elevation view of the wall indicating the elevations of the top of the panels. These elevations shall be at or above the top of exposed panel line shown on the contract plans. This view shall show the elevations of the top of the leveling pads, all steps in the leveling pads and the finished grade line. Each panel type, the number, size and length of soil reinforcement connected to the panel shall be designated. The

equivalent uniform applied bearing pressure shall be shown for each designed wall section.

- (3) A listing of the summary of quantities shall be provided on the elevation sheet of each wall.
- (4) Typical cross section(s) showing the limits of the reinforced select fill volume included within the wall system, soil reinforcement, embankment material placed behind the select fill, precast face panels, and their relationship to the right-of-way limits, excavation cut slopes, existing ground conditions and the finished grade line.
- (5) All general notes required for constructing the wall.
- (b) All details for the concrete leveling pads, including the steps, shall be shown. The top of the leveling pad shall be located at or below the theoretical top of the leveling pad line shown on the contract plans. The theoretical top of leveling pad line shall be 3.5 ft. (1.1 m) below finished grade line at the front face of the wall, unless otherwise shown on the plans.
- (c) Where concrete coping or barrier is specified, the panels shall extend up into the coping or barrier a minimum of 2 in. (50 mm). The top of the panels may be level or sloped to satisfy the top of exposed panel line shown on the contract plans. Cast-in-place concrete will not be an acceptable replacement for panel areas below the top of exposed panel line. As an alternative to cast in place coping, the Contractor may substitute a precast coping, the details of which must be included in the shop drawings and approved by the Engineer.
- (d) All panel types shall be detailed. The details shall show all dimensions necessary to cast and construct each type of panel, all reinforcing steel in the panel, and the location of soil reinforcement connection devices embedded in the panels. These panel embed devices shall not be in contact with the panel reinforcement steel.
- (e) All details of the wall panels and soil reinforcement placement around all appurtenances located behind, on top of, or passing through the soil reinforced wall volume such as parapets with anchorage slabs, coping, foundations, and utilities etc. shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular system shall also be submitted.
- (f) When specified on the contract plans, all details of architectural panel treatment, including color, texture and form liners shall be shown.
- (g) The details for the connection between concrete panels, embed devices, and soil reinforcement shall be shown.

The initial submittal shall include three sets of shop drawings and one set of calculations. One set of drawings will be returned to the Contractor with any corrections indicated. After approval,

the Contractor shall furnish the Engineer with eight sets of corrected plan prints and one mylar set of plans for distribution by the Department. No work or ordering of materials for the structure shall be done until the submittal has been approved by the Engineer.

Materials. The MSE walls shall conform to the supplier's standards as previously approved by the Department, and the following:

- (a) The soil reinforcing system, which includes the soil reinforcement, panel embeds and all connection devices, shall be according to the following:

Inextensible Soil Reinforcement. Steel reinforcement shall be either epoxy coated or galvanized. Epoxy coatings shall be according to Article 1006.10(b)(2), except the minimum thickness of epoxy coating shall be 18 mils (457 microns). No bend test will be required. Galvanizing shall be according to AASHTO M 232 or AASHTO M 111 as applicable.

Mesh and Loop Panel Embeds	AASHTO M 32 /M 32M and M 55/M 55M
Strips	AASHTO M 223/M 223M Grade 65 (450)
Tie Strip Panel Embeds	AASHTO M 270/M 270M Grade 50 (345).

Extensible Soil Reinforcement. Geosynthetic reinforcement shall be monolithically fabricated from virgin high density polyethylene (HDPE) resins having the following properties verified by mill certifications:

<u>Property</u>	<u>Value</u>	<u>Test</u>
Melt Flow Rate (g/cm)	0.060 – 0.150	ASTM D 1238, Procedure B
Density (g/cu m)	0.941 – 0.965	ASTM D 792
Carbon Black	2% (min)	ASTM D 4218

Panel embed/connection devices used with geosynthetic soil reinforcement shall be manufactured from virgin or recycled polyvinyl chloride having the following properties:

<u>Property</u>	<u>Value</u>	<u>Test</u>
Heat Deflection Temperature (°F)	155 - 164	ASTM D 1896
Notched IZOD 1/8 inch @ 73°F (ft-lb/in)	4 – 12	ASTM D 256
Coefficient of Linear Exp. (in/in/°F)	3.5 – 4.5	ASTM D 696
Hardness, Shore D	79	ASTM D 2240

- (b) The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to the following:

- (1) Select Fill Gradation. Either a coarse aggregate or a fine aggregate may be used. For coarse aggregate, gradations CA 6 thru CA 16 may be used. If an epoxy coated or geosynthetic reinforcing is used, the coarse aggregate gradations shall be limited to CA 12 thru CA 16. For fine aggregate, gradations FA 1, FA 2, or FA 20 may be used.

Other aggregate gradations may be used provided the maximum aggregate size is 1 1/2 in. (38 mm), the maximum material passing the #40 (425 μ m) sieve is 60 percent, and the maximum material passing the #200 (75 μ m) sieve is 15 percent.

- (2) Select Fill Quality. The coarse or fine aggregate shall be Class C quality or better, except that a maximum of 15 percent of the material may be finer than the #200 (75 μ m) sieve.
 - (3) Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to ASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.
 - (4) Select Fill and Steel Reinforcing. When steel reinforcing is used, the select fill shall meet the following requirements.
 - a. The pH shall be 5.0 to 10.0 according to AASHTO T 289.
 - b. The resistivity shall be greater than 3000 ohm centimeters according to AASHTO T 288.
 - c. The chlorides shall be less than 100 parts per million according to AASHTO T 291 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 291.
 - d. The sulfates shall be less than 200 parts per million according to AASHTO T 290 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 290.
 - e. The organic content shall be a maximum 1.0 percent according to AASHTO T 267.
 - (5) Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to AASHTO T 289.
 - (6) Test Frequency. Prior to start of construction, a sample of select fill material shall be submitted to the Department for testing and approval. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 20,000 cubic yards (15,500 cubic meters) of select fill material.
- (c) The embankment material behind the select fill shall be according to Section 202 and/or Section 204. An embankment unit weight of 120 lbs./cubic foot (1921 kg/cubic meter) and an effective friction angle of 30 degrees shall be used in the wall system design, unless otherwise indicated on the plans.
- (d) The geosynthetic filter material used across the panel joints shall be either a non-woven needle punch polyester or polypropylene or a woven monofilament polypropylene with a

minimum width of 12 in. (300 mm) and a minimum non-sewn lap of 6 in. (150 mm) where necessary.

(e) The bearing pads shall be rubber, neoprene, polyvinyl chloride, or polyethylene of the type and grade as recommended by the wall supplier.

(f) All precast panels shall be manufactured with Class PC concrete, and shall be according to Section 504 and the following requirements:

(1) The minimum panel thickness shall be 5 1/2 in. (140 mm).

(2) The minimum reinforcement bar cover shall be 1 1/2 in. (38 mm).

(3) The panels shall have a ship lap or tongue and groove system of overlapping joints between panels designed to conceal joints and bearing pads.

(4) The panel reinforcement shall be epoxy coated.

(5) All dimensions shall be within 3/16 in. (5 mm).

(6) Angular distortion with regard to the height of the panel shall not exceed 0.2 in. (5 mm) in 5 ft. (1.5 m).

(7) Surface defects on formed surfaces measured on a length of 5 ft. (1.5 m) shall not be more than 0.1 in. (2.5 mm).

(8) The panel embed/connection devices shall be cast into the facing panels with a tolerance not to exceed 1 in. (25 mm) from the locations specified on the approved shop drawings.

Unless specified otherwise, concrete surfaces exposed to view in the completed wall shall be finished according to Article 503.16. The back face of the panel shall be roughly screeded to eliminate open pockets of aggregate and surface distortions in excess of 1/4 in. (6 mm).

The precast panels shall be produced according to the latest Department's Policy Memorandum for "Quality Control/Quality Assurance Program for Precast Concrete Products."

Design Criteria. The design shall be according to the appropriate AASHTO Design Specifications noted on the plans for Mechanically Stabilized Earth Walls except as modified herein. The wall supplier shall be responsible for all internal stability aspects of the wall design and shall supply the Department with computations for each designed wall section. The analyses of settlement, bearing capacity and overall slope stability will be the responsibility of the Department.

External loads, such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all

appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements or other items shall be accounted for in the internal stability design of the wall.

The design of the soil reinforcing system shall be according to the applicable AASHTO or AASHTO LRFD Design Specifications for "Inextensible" steel or "Extensible" geosynthetic reinforcement criteria. The reduced section of the soil reinforcing system shall be sized to allowable stress levels at the end of a 75 year design life.

Steel soil reinforcing systems shall be protected by either galvanizing or epoxy coating. The design life for epoxy shall be 16 years. The corrosion protection for the balance of the 75 year total design life shall be provided using a sacrificial steel thickness computed for all exposed surfaces according to the applicable AASHTO or AASHTO LRFD Design Specifications.

Geosynthetic soil reinforcing systems shall be designed to account for the strength reduction due to long-term creep, chemical and biological degradation, as well as installation damage.

To prevent out of plane panel rotations, the soil reinforcement shall be connected to the standard panels in at least two different elevations, vertically spaced no more than 30 in. (760 mm) apart.

The panel embed/soil reinforcement connection capacity shall be determined according to the applicable AASHTO or AASHTO LRFD Design Specifications.

The factor of safety for pullout resistance in the select fill shall not be less than 1.5, based on the pullout resistance at 1/2 in. (13 mm) deformation. Typical design procedures and details, once accepted by the Department, shall be followed. All wall system changes shall be submitted in advance to the Department for approval.

For aesthetic considerations and differential settlement concerns, the panels shall be erected in such a pattern that the horizontal panel joint line is discontinuous at every other panel. This shall be accomplished by alternating standard height and half height panel placement along the leveling pad. Panels above the lowest level shall be standard size except as required to satisfy the top of exposed panel line shown on the contract plans.

At locations where the plans specify a change of panel alignment creating an included angle of 150 degrees or less, precast corner joint elements will be required. This element shall separate the adjacent panels by creating a vertical joint secured by means of separate soil reinforcement.

Isolation or slip joints, which are similar to corner joints in design and function, may be required to assist in differential settlements at locations indicated on the plans or as recommended by the wall supplier. Wall panels with areas greater than 30 sq. ft. (2.8 sq. m) may require additional slip joints to account for differential settlements. The maximum standard panel area shall not exceed 60 sq. ft. (5.6 sq. m).

Construction. The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include any costs related to this technical assistance in the unit price bid for this item.

The foundation soils supporting the structure shall be graded for a width equal to or exceeding the length of the soil reinforcement. Prior to wall construction, the foundation shall be compacted with a smooth wheel vibratory roller. Any foundation soils found to be unsuitable shall be removed and replaced, as directed by the Engineer, and shall be paid for separately according to Section 202.

When structure excavation is necessary, it shall be made and paid for according to Section 502 except that the horizontal limits for structure excavation shall be from the rear limits of the soil reinforcement to a vertical plane 2 ft. (600 mm) from the finished face of the wall. The depth shall be from the top of the original ground surface to the top of the leveling pad. The additional excavation necessary to place the concrete leveling pad will not be measured for payment but shall be included in this work.

The concrete leveling pads shall have a minimum thickness of 6 in. (150 mm) and shall be placed according to Section 503.

As select fill material is placed behind a panel, the panel shall be maintained in its proper inclined position according to the supplier specifications and as approved by the Engineer. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4 in. (19 mm) when measured along a 10 ft. (3 m) straight edge. The maximum allowable offset in any panel joint shall be 3/4 in. (19 mm). The overall vertical tolerance of the wall, (plumbness from top to bottom) shall not exceed 1/2 in. per 10 ft. (13 mm per 3 m) of wall height. The precast face panels shall be erected to insure that they are located within 1 in. (25 mm) from the contract plan offset at any location to insure proper wall location at the top of the wall. Failure to meet this tolerance may cause the Engineer to require the Contractor to disassemble and re-erect the affected portions of the wall. A 3/4 in. (19 mm) joint separation shall be provided between all adjacent face panels to prevent direct concrete to concrete contact. This gap shall be maintained by the use of bearing pads and/or alignment pins.

The back of all panel joints shall be covered by a geotextile filter material attached to the panels with a suitable adhesive. No adhesive will be allowed directly over the joints.

The select fill and embankment placement shall closely follow the erection of each lift of panels. At each soil reinforcement level, the fill material should be roughly leveled and compacted before placing and attaching the soil reinforcing system. The soil reinforcement and the maximum lift thickness shall be placed according to the supplier's recommended procedures except, the lifts for select fill shall not exceed 10 in. (255 mm) loose measurement or as approved by the Engineer. Embankment shall be constructed according to Section 205.

At the end of each day's operations, the Contractor shall shape the last level of select fill to permit runoff of rainwater away from the wall face. Select fill shall be compacted according to the project specifications for embankment except the minimum required compaction shall be 95

percent of maximum density as determined by AASHTO T-99. Select fill compaction shall be accomplished without disturbance or distortion of soil reinforcing system and panels. Compaction in a strip 3 ft. (1 m) wide adjacent to the backside of the panels shall be achieved using a minimum of 3 passes of a light weight mechanical tamper, roller or vibratory system.

Method of Measurement. Mechanically Stabilized Earth Retaining Wall will be measured for payment in square feet (square meters). The MSE retaining wall will be measured from the top of exposed panel line to the theoretical top of leveling pad line for the length of the wall as shown on the contract plans.

Basis of Payment. This work, including placement of the select fill within the soil reinforced wall volume shown on the approved shop drawings, precast face panels, soil reinforcing system, concrete leveling pad and accessories will be paid for at the contract unit price per square foot (square meter) for MECHANICALLY STABILIZED EARTH RETAINING WALL.

Concrete coping when specified on the contract plans will be included for payment in this work. Other concrete appurtenances such as anchorage slabs, parapets, abutment caps, etc. will not be included in this work, but will be paid for as specified elsewhere in this contract, unless otherwise noted on the plans.

Excavation necessary to place the select fill for the MSE wall shall be paid for as STRUCTURE EXCAVATION and/or ROCK EXCAVATION FOR STRUCTURES as applicable, according to Section 502.

Embankment placed outside of the select fill volume will be measured and paid for according to Sections 202 and/or 204 as applicable.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000

Revised: January 1, 2007

Description. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe drain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 15, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

Construction Requirements. All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

Method of Measurement. Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified,. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

POROUS GRANULAR EMBANKMENT (SPECIAL)

Effective: September 28, 2005

Revised: January 1, 2007

Description. This work shall consist of furnishing, and placing porous granular embankment (special) material as detailed on the plans, according to Section 207 except as modified herein.

Materials. The gradation of the porous granular material may be any of the following CA 8 thru CA 18, FA 1 thru FA 4, FA 7 thru FA 9, and FA 20 according to Articles 1003 and 1004.

Construction. The porous granular embankment (special) shall be installed according to Section 207, except that it shall be uncompacted.

Basis of Payment. This work will be paid for at the contract unit price per Cubic Yard (Cubic Meter) for POROUS GRANULAR EMBANKMENT (SPECIAL).

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
COOPERATION WITH UTILITIES

Effective: January 1, 1999
Revised: January 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.

Replace Article 105.07 of the Standard Specifications with the following:

105.07 Cooperation with Utilities. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation or altering of an existing utility facility in any manner.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of the underground utility facilities.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting existing utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be shown on the plans and/or covered by Special Provisions.

When the Contractor discovers a utility has not been adjusted by the owner or the owner's representative as indicated in the contract documents, or the utility is not shown on the plans or described in the Special Provisions as to be adjusted in conjunction with construction, the Contractor shall not interfere with said utility, and shall take proper precautions to prevent damage or interruption of the utility and shall promptly notify the Engineer of the nature and location of said utility.

All necessary adjustments, as determined by the Engineer, of utilities not shown on the plans or not identified by markers, will be made at no cost to the Contractor except traffic structures, light poles, etc., that are normally located within the proposed construction limits as hereinafter defined will not be adjusted unless required by the proposed improvement.

(a) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:

- (1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.

- (2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
- (3) The lower vertical limits shall be the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.

(b) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:

- (1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.
- (2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

The Contractor may make arrangements for adjustment of utilities outside of the limits of proposed construction provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction shall be the responsibility of the Contractor unless otherwise provided.

The Contractor shall request all utility owners to field locate their facilities according to Article 107.31. The Engineer may make the request for location from the utility after receipt of notice from the Contractor. On request, the Engineer will make an inspection to verify that the utility company has field located its facilities, but will not assume responsibility for the accuracy of such work. The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners. This field location procedure may be waived if the utility owner has stated in writing to the Department it is satisfied the construction plans are sufficiently accurate. If the utility owner does not submit such statement to the Department, and they do not field locate their facilities in both horizontal and vertical alignment, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer orally and in writing.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions.

No additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from the said utility facilities or the operation of relocating the said utility facilities.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 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 as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27 the following entities:

The City of Naperville

The entities listed above will be indemnified and held harmless in accordance with Article 107.26.

CEMENT (BDE)

Effective: January 1, 2007

Revise Section 1001 of the Standard Specifications to read:

"SECTION 1001. CEMENT

1001.01 Cement Types. Cement shall be according to the following.

- (a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement and the total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302 and Class C fly ash according to the chemical requirements of AASHTO M 295.

- (b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland-pozzolan cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IP or I(PM) may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The pozzolan constituent for Type IP shall be a maximum of 21 percent of the weight (mass) of the portland-pozzolan cement. All other cements referenced in ASTM C 595 may be used when approved by the Engineer.

For cast-in-place construction, portland-pozzolan cements shall only be used from April 1 to October 15.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall not be used.

- (c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type I(SM) slag-modified portland cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. All other cements referenced in ASTM C 595 may be used when approved by the Engineer.

For cast-in-place construction, portland blast-furnace slag cements shall only be used from April 1 to October 15.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall not be used.

- (d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.
- (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.
 - (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.
 - (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.
 - (4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.
 - (5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to Illinois Modified AASHTO T 161, Procedure B. At 100 cycles, the specimens are measured and weighed at 73 °F (23 °C).
- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used when specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The

chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al_2O_3), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO_3), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

1001.02 Uniformity of Color. Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.

1001.03 Mixing Brands and Types. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.

1001.04 Storage. Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate."

80166

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (DBE)

Effective: September 1, 2000

Revised: January 1, 2007

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the DBE Directory or most recent addendum.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE firms performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of

DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 7 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that firmly committed DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders may consult the DBE Directory as a reference source for DBE companies certified by the Department. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid not responsive.

- (a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven working days after the date of letting. To meet the seven day requirement, the bidder may send the Plan by certified mail or delivery service within the seven working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the

project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The name and address of each DBE to be used;
 - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
 - (3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
 - (5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five working day period in order to cure the deficiency.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to

count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE firm does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt to meet the goal. This means that the bidder must show

that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
 - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
 - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
 - (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the

ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
 - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of

Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal.

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to

find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

- (c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

ERRATA FOR THE 2007 STANDARD SPECIFICATIONS (BDE)

Effective: January 1, 2007

Revised: April 1, 2007

- Page 60 Article 109.07(a). In the second line of the first paragraph change "amount" to "quantity".
- Page 207 Article 406.14. In the second line of the second paragraph change "MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS, of the mixture composition specified;" to "MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS;".
- Page 345 Article 505.08(l). In the third line of the first paragraph change "1/8 mm" to "1/8 in.".
- Page 345 Article 505.08(l). In the nineteenth line of the first paragraph change "is" to "in".
- Page 383 Article 516.04(b)(1). In the fifth line of the first paragraph change "drillingpouring" to "pouring".
- Page 390 Article 520.02(h). Change "1027.021" to "1027.01".
- Page 398 Article 540.07(b). Add the following two paragraphs after the third paragraph:
"Excavation in rock will be measured for payment according to Article 502.12.
Removal and disposal of unstable and/or unsuitable material below plan bedding grade will be measured for payment according to Article 202.07."
- Page 398 Article 540.08. Add the following two paragraphs after the fifth paragraph:
"Excavation in rock will be paid for according to Article 502.13.
Removal and disposal of unstable and/or unsuitable material below plan bedding grade will be paid for according to Article 202.08."
- Page 435 Article 542.04(b). Delete the last sentence of the last paragraph.
- Page 465 Article 551.06. In the second line of the first paragraph change "or" to "and/or".
- Page 585 Article 701.19(a). Add "701400" to the second line of the first paragraph.
- Page 586 Article 701.19(c). Delete "701400" from the second line of the first paragraph.
- Page 586 Article 701.19. Add the following subparagraph to this Article:
"(f) Removal of existing pavement markings and raised reflective pavement markers will be measured for payment according to Article 783.05."

- Page 587 Article 701.20(b). Delete "TRAFFIC CONTROL AND PROTECTION 701400;" from the first paragraph.
- Page 588 Article 701.20. Add the following subparagraph to this Article.
 "(j) Removal of existing pavement markings and raised reflective pavement markers will be paid for according to Article 783.06."
- Page 762 Article 1020.04. In Table 1 Classes of Portland Cement Concrete and Mix Design Criteria, add to the minimum cement factor for Class PC Concrete "5.65 (TY III)", and add to the maximum cement factor for Class PC Concrete "7.05 (TY III)".
- Page 765 Article 1020.04. In Table 1 Classes of Portland Cement Concrete and Mix Design Criteria (metric), add to the minimum cement factor for Class PC Concrete "335 (TY III)", and add to the maximum cement factor for Class PC Concrete "418 (TY III)".
- | Page 800 Article 1030.05(a)(12). Revise "Dust Collection Factor" to "Dust Correction Factor".
- | Page 800 Article 1030.05(a)(14). Revise the first occurrence of Article 1030.05(a)(14) to Article 1030.05(a)(13).
- Page 809 Article 1030.05. Revise the subparagraph "(a) Quality Assurance by the Engineer." to read "(e) Quality Assurance by the Engineer."
- Page 946 Article 1080.03(a)(1). In the third line of the first paragraph revise "(300 µm)" to "(600 µm)".
- Page 963 Article 1083.02(b). In the second line of the first paragraph revise "ASTM D 4894" to "ASTM D 4895".
- Page 1076 In the Index of Pay Items delete the pay item "BITUMINOUS SURFACE REMOVAL – BUTT JOINT".

80168

HOT-MIX ASPHALT EQUIPMENT, SPREADING AND FINISHING MACHINE (BDE)

Effective: January 1, 2005

Revised: January 1, 2007

Revise the fourth paragraph of Article 1102.03 of the Standard Specifications to read:

“The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to uniformly place a non-segregated mixture in front of the screed. The distribution system shall have chain curtains, deflector plates, and /or other devices designed and built by the paver manufacturer to prevent segregation during distribution of the mixture from the hopper to the paver screed. The Contractor shall submit a written certification that the devices recommended by the paver manufacturer to prevent segregation have been installed and are operational. Prior to paving, the Contractor, in the presence of the Engineer, shall visually inspect paver parts specifically identified by the manufacturer for excessive wear and the need for replacement. The Contractor shall supply a completed check list to the Engineer noting the condition of the parts. Worn parts shall be replaced. The Engineer may require an additional inspection prior to placement of the surface course or at other times throughout the work.”

80142

NOTIFICATION OF REDUCED WIDTH (BDE)

Effective: April 1, 2007

Add the following after the first paragraph of Article 701.06 of the Standard Specifications:

“Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction.”

80182

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section

| 7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

80022

PORTLAND CEMENT CONCRETE PLANTS (BDE)

Effective: January 1, 2007

Add the following to Article 1020.11(a) of the Standard Specifications.

- “(9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.
- a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.
 - b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.
 - c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.
 - d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.
 - e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for their mean strength shall not exceed 450 psi (3100 kPa) compressive and 80 psi (550 kPa) flexural. The strength standard deviation for each plant shall not exceed 650 psi (4480 kPa) compressive and 110 psi (760 kPa) flexural. The mean and standard deviation requirements shall apply to the test of record. If the strength difference requirements are exceeded, the Contractor shall take corrective action.

- f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete until the haul time difference is corrected."

80170

RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)

Effective: January 1, 2007

Revised: April 1, 2007

In Article 1030.02(g), delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT

1031.01 Description. Reclaimed asphalt pavement (RAP) is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

1031.02 Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District to provide verification of the quality of the RAP to clarify appropriate stockpile.

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent:
1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High 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 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate 5/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High 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 B quality. This RAP may have an

inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in. (9.5 mm) or smaller screen. Conglomerate 3/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

- (d) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. 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.
- (e) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

1031.03 Testing. When used in HMA, the RAP shall be sampled and tested either during or after 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).

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 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 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.

- (a) Testing Conglomerate 3/8. In addition to the requirements above, conglomerate 3/8 RAP shall be tested for maximum theoretical specific gravity (G_{mm}) at a 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).

- (b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm} . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μ m)	± 5 %	
No. 200 (75 μ m)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % ^{1/}	± 0.5 %
G_{mm}	± 0.02 % ^{2/}	

1/ The tolerance for conglomerate 3/8 shall be ± 0.3 %.

2/ Applies only to conglomerate 3/8. When variation of the G_{mm} exceeds the ± 0.02 % tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

1031.04 Quality Designation of Aggregate in RAP. The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.
- (b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.
- (c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

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

1031.05 Use of RAP in HMA. The use of RAP in HMA shall be as follows.

- (a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP 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) surface mixtures only.
- (c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be either homogeneous or conglomerate 3/8, in which the coarse aggregate is Class B quality or better.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, conglomerate 5/8, or conglomerate 3/8, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate 5/8, conglomerate 3/8, or conglomerate DQ.
- (f) The use of RAP shall be a contractor's option when constructing HMA in all contracts. When the contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table for a given N Design.

Max RAP Percentage

HMA MIXTURES ^{1/, 3/}	MAXIMUM % RAP		
	Binder/Leveling Binder	Surface	Polymer Modified
Ndesign 30	30	30	10
50	25	15	10
70	15 / 25 ^{2/}	10 / 15 ^{2/}	10
90	10	10	10
105	10	10	10

1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

2/ Value of Max % RAP if 3/8 RAP is utilized.

- 3/ When RAP exceeds 20%, the high & low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25% RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

1031.06 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

1031.07 HMA Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP 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 the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 RAP, a positive dust control system shall be utilized.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

(a) Dryer Drum Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

- (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.
- (8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP are printed in wet condition.)

(b) Batch Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- (4) Mineral filler weight to the nearest pound (kilogram).
- (5) RAP weight to the nearest pound (kilogram).
- (6) Virgin asphalt binder weight to the nearest pound (kilogram).
- (7) Residual asphalt binder in the RAP 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.

1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP 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 "Other". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

80172

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)

Effective: April 1, 2007

Revise the seventh paragraph of Article 1106.02 of the Standard Specifications to read:

"At the time of manufacturing, the retroreflective prismatic sheeting used on channelizing devices shall meet or exceed the initial minimum coefficient of retroreflection as specified in the following table. Measurements shall be conducted according to ASTM E 810, without averaging. Sheeting used on cones, drums and flexible delineators shall be reboundable as tested according to ASTM D 4956. Prestriped sheeting for rigid substrates on barricades shall be white and orange.

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material				
Observation Angle (deg.)	Entrance Angle (deg.)	White	Orange	Fluorescent Orange
0.2	-4	365	160	150
0.2	+30	175	80	70
0.5	-4	245	100	95
0.5	+30	100	50	40"

Revise the first sentence of the first paragraph of Article 1106.02(c) of the Standard Specifications to read:

"Barricades and vertical panels shall have alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

Revise the third sentence of the first paragraph of Article 1106.02(d) of the Standard Specifications to read:

"The bottom panels shall be 8 x 24 in. (200 x 600 mm) with alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

80183

REINFORCEMENT BARS (BDE)

Effective: November 1, 2005

Revised: January 1, 2007

Revise Article 1006.10(a) of the Standard Specifications to read:

"(a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reinforcement Bar and Dowel Bar Plant Certification Procedure". The Department will maintain an approved list of producers.

(1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706 (A 706M), Grade 60 (420) for deformed bars and the following.

a. Chemical Composition. The chemical composition of the bars shall be according to the following table.

CHEMICAL COMPOSITION		
Element ^{1/}	Heat Analysis (% maximum)	Product Analysis (% maximum)
Carbon	0.30	0.33
Manganese	1.50	1.56
Phosphorus	0.035	0.045
Sulfur	0.045	0.055
Silicon	0.50	0.55
Nickel	^{2/}	^{2/}
Chromium	^{2/}	^{2/}
Molybdenum	^{2/}	^{2/}
Copper	^{2/}	^{2/}
Titanium	^{2/}	^{2/}
Vanadium	^{2/}	^{2/}
Columbium	^{2/}	^{2/}
Aluminum	^{2/} , ^{3/}	^{2/} , ^{3/}
Tin ^{4/}	0.040	0.044

Note 1/. The bars shall not contain any traces of radioactive elements.

Note 2/. There is no composition limit but the element must be reported.

Note 3/. If aluminum is not an intentional addition to the steel for deoxidation or killing purposes, residual aluminum content need not be reported.

Note 4/. If producer bar testing indicates an elongation of 15 percent or more and passing of the bend test, the tin composition requirement may be waived.

- b. Heat Numbers. Bundles or bars at the construction site shall be marked or tagged with heat identification numbers of the bar producer.
 - c. Guided Bend Test. Bars may be subject to a guided bend test across two pins which are free to rotate, where the bending force shall be centrally applied with a fixed or rotating pin of a certain diameter as specified in Table 3 of ASTM A 706 (A 706M). The dimensions and clearances of this guided bend test shall be according to ASTM E 190.
 - d. Spiral Reinforcement. Spiral reinforcement shall be deformed or plain bars conforming to the above requirements or cold-drawn steel wire conforming to AASHTO M 32.
- (2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284 (M 284M) and the following.
- a. Certification. The epoxy coating applicator shall be certified under the Concrete Reinforcing Steel Institute's (CRSI) Epoxy Plant Certification Program.
 - b. Coating Thickness. The thickness of the epoxy coating shall be 7 to 12 mils (0.18 to 0.30 mm). When spiral reinforcement is coated after fabrication, the thickness of the epoxy coating shall be 7 to 20 mils (0.18 to 0.50 mm).
 - c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 0.5 in. (13 mm) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

80151

SEEDING (BDE)

Effective: July 1, 2004

Revised: January 1, 2007

Revise the following seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

"Table 1 - SEEDING MIXTURES		
Class - Type	Seeds	lb/acre (kg/hectare)
2 Roadside Mixture 7/	Inferno Tall Fescue, Tarheel II Tall Fescue, or Quest Tall Fescue Perennial Ryegrass Creeping Red Fescue Red Top	100 (110) 50 (55) 40 (50) 10 (10)
2A Salt Tolerant Roadside Mixture 7/	Inferno Tall Fescue, Tarheel II Tall Fescue, or Quest Tall Fescue Perennial Ryegrass Audubon Red Fescue Rescue 911 Hard Fescue Fults Salt Grass 1/	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)"

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
Variety of Seeds	Hard Seed % Max.	Purity % Min.	Pure Live Seed % Min.	Weed % Max.	Secondary * Noxious Weeds No. per oz (kg) Max. Permitted	Notes
Alfalfa	20	92	89	0.50	6 (211)	1/
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Audubon Red Fescue	0	97	82	0.10	3 (105)	-
Fescue, Creeping Red	-	97	82	1.00	6 (211)	-
Fescue, Inferno Tall	0	98	83	0.10	2 (70)	-
Fescue, Tarheel II Tall	-	97	82	1.00	6 (211)	-
Fescue, Quest Tall	0	98	83	0.10	2 (70)	-
Fults Salt Grass	0	98	85	0.10	2 (70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 (70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 (70)	3/
Rescue 911 Hard Fescue	0	97	82	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 (70)	3/

Revise the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

"The seed quantities indicated per acre (hectare) for Prairie Grass Seed in Classes 3, 3A, 4, 4A, 6, and 6A in Article 250.07 shall be the amounts of pure, live seed per acre (hectare) for each species listed."

80131

SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005

Revised: January 1, 2007

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for cast-in-place concrete construction items involving Class MS, DS, and SI concrete.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. Article 1020.04 of the Standard Specifications shall apply, except as follows:

- (a) The cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m). The cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used.
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements shall not apply.
- (d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.
- (f) The visual stability index shall be a maximum of 1.
- (g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.
- (h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.
- (i) The column segregation index shall be a maximum 15 percent.
- (j) The hardened visual stability index shall be a maximum of 1.

Test Methods. Illinois Test Procedures SCC-1, SCC-2, SCC-3, SCC-4, SCC-5, SCC-6, and Illinois Modified AASHTO T 22, 23, 121, 126, 141, 152, 177, 196, and 309 shall be used for testing of self-consolidating concrete mixtures.

Mix Design Submittal. The Contractor's Level III PCC Technician shall submit a mix design according to the "Portland Cement Concrete Level III Technician" course manual, except target slump information is not applicable and will not be required. However, a slump flow target range shall be submitted. In addition, the design mortar factor may exceed 1.10 and durability test data will be waived.

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

Trial Batch. A minimum 2 cu yd (1.5 cu m) trial batch shall be produced, and the self-consolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 1.0 in. (25 mm) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions beyond normal field adjustments, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

Mixing Portland Cement Concrete. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

Falsework and Forms. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall consider the fluid nature of the concrete for designing the falsework and forms. Forms shall be tight to prevent leakage of fluid concrete.

Placing and Consolidating. Concrete placement and consolidation shall be according to Article 503.07 of the Standard Specifications, except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 5 ft (1.5 m). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the seventh, eighth, ninth, and tenth paragraphs of Article 503.07 of the Standard Specifications.

Add to the end of the eleventh paragraph of Article 503.07 of the Standard Specifications the following:

"Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer."

Quality Control by Contractor at Plant. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

Quality Control by Contractor at Jobsite. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 50 cu yd (40 cu m) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 300 cu yd (230 cu m) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

Quality Assurance by Engineer at Plant. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

Quality Assurance by Engineer at Jobsite. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 1.5 in. (40 mm) for slump flow and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will

include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 1.5 in. (40 mm) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

80152

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Revised: January 1, 2007

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. The mix design criteria shall be as follows:

- (a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.
- (d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.
- (f) The visual stability index shall be a maximum of 1.
- (g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.
- (h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.
- (i) The column segregation index shall be a maximum 15 percent.
- (j) The hardened visual stability index shall be a maximum of 1.

Placing and Consolidating. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: January 1, 2007

Revise the second sentence of the first paragraph of Article 280.04(a) of the Standard Specifications to read:

"Temporary ditch checks shall be constructed with rolled excelsior, products from the Department's approved list, or with aggregate when specified."

Revise Article 1081.15(f) of the Standard Specifications to read:

"(f) Rolled Excelsior. Rolled excelsior shall consist of an excelsior fiber filling totally encased inside netting and sealed with metal clips or knotted at the ends. Each roll shall be a minimum of 20 in. (500 mm) in diameter and a minimum of 10 ft (3 m) in length. Each 10 ft (3 m) roll shall have a minimum weight (mass) of 30 lbs (13.6 kg). The excelsior fiber filling shall be weed free. At least 80 percent of the fibers shall be a minimum of 6 in. (150 mm) in length. The fiber density shall be a minimum of 1.38 lb/cu ft (22 kg/cu m). The netting shall be composed of a polyester or polypropylene material which retains 70 percent of its strength after 500 hours of exposure to sunlight. The maximum opening of the net shall be 1 x 1 in. (25 x 25 mm)."

80087

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 1. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 75 working days.

80071

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

	Page
I. General	1
II. Nondiscrimination	1
III. Nonsegregated Facilities	3
IV. Payment of Predetermined Minimum Wage.....	3
V. Statements and Payrolls	6
VI. Record of Materials, Supplies, and Labor.....	7
VIII. Safety: Accident Prevention	7
IX. False Statements Concerning Highway Projects.....	7
X. Implementation of Clean Air Act and Federal Water Pollution Control Act	8
XI. Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion	8
XII. Certification Regarding Use of Contract Funds for Lobbying	9

ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4 and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

- a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above

agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any

evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to

the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the

contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or

disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not

listed on the wage determination unless the Administrator of the

be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits

Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall, upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan

or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period).

The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V.

This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U/S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for

inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

- a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
- b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
- c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

- a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a

whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S. C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification,

distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

“Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.”

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of

any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms “covered transaction,” “debarred,” “suspended,” “ineligible,” “lower tier covered transaction,” “participant,” “person,” “primary covered transaction,” “principal,” “proposal,” and “voluntarily excluded,” as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled

"Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility And Voluntary Exclusion-Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.il.gov/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.il.gov/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.