### **BID PROPOSAL INSTRUCTIONS**

**ABOUT IDOT PROPOSALS:** All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

#### **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.

#### 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.

#### **REQUESTS FOR AUTHORIZATION TO BID**

Contractors 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 124) and the ORIGINAL "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.

#### WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) 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 an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

#### **ABOUT AUTHORIZATION TO BID**

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. 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 bidder'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 or revision will be included with the Electronic Plans and Proposals. 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 service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <a href="http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin">http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin</a> before submitting final bid information.

#### IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or DOT.D&Econtracts@illlinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or <a href="mailto:Timothy.Garman@illinois.gov">Timothy.Garman@illinois.gov</a>.

#### STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages i iii and pages a g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

#### **BID SUBMITTAL CHECKLIST**

Cover page (the sheet that has the item number on it) – This should be the first page of your bid proposal, followed by your bid (the Schedule of Prices/Pay Items). If you are using special software or CBID to generate your schedule of prices, do not include the blank pages of the schedule of prices that came with the proposal package.
☐ Page 4 (Item 9) — Check "YES" if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.
☐ <b>After page 4</b> – Insert the following documents: Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don't know where it goes, put it after page 4.
☐ Page 10 (Paragraph J) – Check "YES" or "NO" whether your company has any business in Iran.
☐ Page 10 (Paragraph K) – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.
☐ Page 11 (Paragraph L) – A copy of your State Board of Elections certificate of registration is no longer required with your bid.
☐ Page 11 (Paragraph M) – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.
☐ Page 12 (Paragraph C) – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.
□ Pages 14-17 (Form A) – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification signature and date must be original for each letting. Do not staple the forms together. If you answered "NO" to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.
Page 18 (Form B) - If you check "YES" to having other current or pending contracts it is acceptable to use the phrase, "See Affidavit of Availability on file". Ownership Certification (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A.
☐ Page 20 (Workforce Projection) – Be sure to include the Duration of the Project. It is acceptable to use the phrase "Per Contract Specifications".

☐ <b>Proposal Bid Bond</b> – (Insert after the proposal signature page) Submit you using the current Proposal Bid Bond form provided in the proposal package. the Proposal Bid Bond. If you are using an electronic bond, include your bid the Proof of Insurance printed from the Surety's Web Site.	The Power of Attorney page should be stapled to
☐ <b>Disadvantaged Business Utilization Plan and/or Good Faith Effort</b> – T Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SB documentation of a Good Faith Effort, it is to follow the SBE Forms.	
The Bid Letting is now available in streaming Audio/Video from the IDOT the main page of the current letting on the day of the Letting. The stream will bids does not begin until approximately 10:30 AM.	<b>T Web Site.</b> A link to the stream will be placed on not begin until 10 AM. The actual reading of the
Following the Letting, the As-Read Tabulation of Bids will be posted by the en Web page for the current letting.	nd of the day. You will find the link on the main
QUESTIONS: pre-letting up to execution of the contract	
Contractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	
Contracts, Bids, Letting process or Internet downloads	
Estimates Unit	
Aeronautics	
IDNR (Land Reclamation, Water Resources, Natural Resources)	217-782-6302
QUESTIONS: following contract execution	
Subcontractor documentation, payments	217-782-3413
Railroad Insurance	217-785-0275

26

Prop	osal Submitted By	
Name	e	
Addr	ress	
City		

### Letting September 18, 2015

### 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.

**BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL** 

### Notice to Bidders, Specifications, Proposal, Contract and Contract Bond



Springfield, Illinois 62764

Contract No. 66901 BUREAU County Section (116)R,T Route FAP 316 Project ACNHPP-0316(041) District 3 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:
☐ A <u>Bid</u> <u>Bond</u> is included.
☐ A Cashier's Check or a Certified Check is included
☐ An Annual Bid Bond is included or is on file with IDOT.

Prepared by

Checked by

(Printed by authority of the State of Illinois)

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1

**PROPOSAL** 

#### TO THE DEPARTMENT OF TRANSPORTATION

•	Proposal of
	Taxpayer Identification Number (Mandatory)
	For the improvement identified and advertised for bids in the Invitation for Bids as:
	Contract No. 66901 BUREAU County Section (116)R,T Project ACNHPP-0316(041) Route FAP 316 District 3 Construction Funds

Reconstruction of IL 26 with a 4-lane divided roadway south of Progress Drive and widening and resurfacing north of Progress Drive, also widening of I-80 WB exit ramp, all located in Bureau County.

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 will govern performance and payments.

- 3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda 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 bid proposal he/she waives all right to plead any misunderstanding regarding the same.
- 4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder 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, or as specified in the special provisions, 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>A</u>	mount o	of Bid	Proposal <u>Guaranty</u>	<u>Am</u>	ount c		roposal luaranty
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\$	3400,000
\$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	000,008
\$1,000,000	to	\$1,500,000	\$50,000	\$30,000,000	to	\$35,000,000\$	3900,000
\$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 bid proposals will be made payable to the Treasurer, State of Illinois.

If a combination bid is submitted, the proposal guaranties which accompany the individual bid 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 will fail to execute a contract bond as required herein, it is hereby	y agreed that the amount of	the proposal guaranty will become the
property of the State of Illinois, and shall be considered as payment of damages due	e to delay and other causes	s suffered by the State because of the
failure to execute said contract and contract bond; otherwise, the bid bond will bec	ome void or the proposal	guaranty check will be returned to the
undersigned.		

undersigned.		sine told of the proposal guaranty officer, will be foldined to the
Attach Cashier's C	heck or Certif	ied Check Here
In the event that one proposal guaranty check is intended to cover two of the proposal guaranties which would be required for each individual proposal, state below where it may be found.		
The proposal guaranty check will be found in the bid proposal for:	Item	
	Section No.	
	County	

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

6.	following combination proportion to the	BIDS. The undersigned bidder further agrees that if awarded the ation, he/she will perform the work in accordance with the requirement bid specified in the schedule below, and that the combination bid bid submitted for the same. If an error is found to exist in the gross in a combination, the combination bid shall be corrected as provide	ents of each individual contract comprisir shall be prorated against each section s sum bid for one or more of the individu
		a combination bid is submitted, the schedule below must be coising the combination.	ompleted in each proposal
		nate bids are submitted for one or more of the sections compri nation bid must be submitted for each alternate.	sing the combination, a
		Schedule of Combination Bids	
Со	mbination No.	Sections Included in Combination	Combination Bid Dollars Cents
7.	schedule of price all extensions ar schedule are app is an error in the will be made only The scheduled q	PRICES. The undersigned bidder submits herewith, in accordant is for the items of work for which bids are sought. The unit prices and summations have been made. The bidder understands that proximate and are provided for the purpose of obtaining a gross surextension of the unit prices, the unit prices will govern. Payment to actual quantities of work performed and accepted or materials unantities of work to be done and materials to be furnished may be the in the contract.	bid are in U.S. dollars and cents, and the quantities appearing in the bid in for the comparison of bids. If there to the contractor awarded the contract is furnished according to the contract.
8.	500/20-43) provid	DO BUSINESS IN ILLINOIS. Section 20-43 of the Illinois Produces that a person (other than an individual acting as a sole proprietor or conduct affairs in the State of Illinois prior to submitting the bid.	
9.	Department proc and make payme Purchasing Office Neither the CPO	F CONTRACT: The Department of Transportation will, in accurements, execute the contract and shall be the sole entity having ents under the contract. Execution of the contract by the Chief Proper (SPO) is for approval of the procurement process and execution on the SPO shall be responsible for administration of the coayment there under except as otherwise permitted in the Code.	the authority to accept performance ocurement Officer (CPO) or the State of the contract by the Department.
10.	The services of	a subcontractor will be used.	
	Check box Check box	Yes  No	
		ubcontractors with subcontracts with an annual value of more than \$ address, general type of work to be performed, and the dollar allocat 0/20-120)	

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route	
ACNHPP-0316/041/	FAP 316	

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
X0487700	SAN SEW REMOV 10	FOOT	56.000				
X0703200	CONCRETE ISLAND SPL	SQ FT	441.000				
X1200033	SANITARY SEW IN CP 10	FOOT	16.000				
X1200047	SAN SEW PVC 10	FOOT	36.000				
X1400082	S C MAA&P DMA 30 & 38	EACH	1.000				
X1700005	ISLAND PAVEMENT (SPL)	SQ FT	522.500				
X4400110	TEMP PAVT REMOVAL	SQ YD	3,026.000				
X4401198	HMA SURF REM VAR DP	SQ YD	190.000				
X4402805	ISLAND REMOVAL	SQ FT	232.000				
X5091765	PIPE HANDRAIL SPL	FOOT	226.000				
X5427600	REM & RELOC END SECT	EACH	1.000				
X5620120	INST WAT SER COMPLETE	EACH	1.000				
X6013600	PIPE UNDERDRAIN 4 MOD	FOOT	5,161.000				
X6020074	INLETS TA T3V F&G	EACH	9.000				
X6020075	INLETS TB T3V F&G	EACH	13.000				

State Job # - C-93-043-09

County Name - BUREAU- - Project Number Route

ACNHPP-0316/041/ FAP 316

Code - 11 - - District - 3 - -

ltem Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
X6022830	MAN SAN 6 DIA T1F CL	EACH	1.000				
X6024240	INLETS SPL	EACH	1.000				
X6060714	CONC MEDIAN SPL	SQ FT	179.000				
X6061460	PAVED DITCH SPEC	FOOT	129.000				
X6650202	WOV W FENCE REMOV	FOOT	381.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7010410	SPEED DISPLAY TRAILER	CAL MO	15.000				
X7200201	WIDTH RESTRICT SIGN	L SUM	1.000				
X7830060	GRV RCSD PM LTR & SYM	SQ FT	712.400				
X7830074	GRV RCSD PVT MRKG 7	FOOT	1,206.600				
X7830076	GRV RCSD PVT MRKG 9	FOOT	2,549.600				
X7830090	GRV RCSD PVT MRKG 25	FOOT	160.600				
X8250505	LIGHT CONTROLLER SPL	EACH	1.000				
X8570231	FAC T5 CAB SPL	EACH	1.000				
X8710024	FOCC62.5/125 MM12SM24	FOOT	1,540.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route	
ACNHPP-0316/041/	FAP 316	

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
X8860100	LOOP DET TESTING	EACH	1.000				
Z0004530	HMA DRIVEWAY PAVT 8	SQ YD	972.000				
Z0005216	HMA STAB 6 AT SPBGR	SQ YD	220.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0020900	EST-REF LAND SEC MKRS	EACH	1.000				
Z0030850	TEMP INFO SIGNING	SQ FT	42.000				
Z0033056	OPTIM TRAF SIGNAL SYS	EACH	1.000				
Z0054400	ROCK FILL	CU YD	154.000				
Z0056612	STORM SEW WM REQ 18	FOOT	24.000				
Z0056616	STORM SEW WM REQ 24	FOOT	296.000				
Z0067400	STEEL CASINGS 14	FOOT	16.000				
Z0067900	STEEL CASINGS 24	FOOT	40.000				
20100110	TREE REMOV 6-15	UNIT	275.000				
20100210	TREE REMOV OVER 15	UNIT	128.000				
20200100	EARTH EXCAVATION	CU YD	15,763.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	х	Unit Price	=	Total Price
20201200	REM & DISP UNS MATL	CU YD	157.000				
20400800	FURNISHED EXCAVATION	CU YD	6,879.000				
20800150	TRENCH BACKFILL	CU YD	560.000				
25000200	SEEDING CL 2	ACRE	2.800				
25000300	SEEDING CL 3	ACRE	1.600				
25000400	NITROGEN FERT NUTR	POUND	396.000				
25000500	PHOSPHORUS FERT NUTR	POUND	396.000				
25000600	POTASSIUM FERT NUTR	POUND	396.000				
25100115	MULCH METHOD 2	ACRE	20.300				
25100630	EROSION CONTR BLANKET	SQ YD	25,309.000				
25200100	SODDING	SQ YD	4,356.000				
28000250	TEMP EROS CONTR SEED	POUND	1,590.000				
28000305	TEMP DITCH CHECKS	FOOT	550.000				
28000400	PERIMETER EROS BAR	FOOT	1,852.000				
28000500	INLET & PIPE PROTECT	EACH	49.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - 
District - 3 - 
Section Number - (116) R,T

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	II	Total Price
28100109	STONE RIPRAP CL A5	SQ YD	250.000				
28200200	FILTER FABRIC	SQ YD	548.000				
28500100	FAB FORM CONC REV MAT	SQ YD	509.000				
31100900	SUB GRAN MAT A 10	SQ YD	3,371.000				
31100910	SUB GRAN MAT A 12	SQ YD	18,269.000				
31101200	SUB GRAN MAT B 4	SQ YD	1,697.000				
35101400	AGG BASE CSE B	TON	334.000				
40200800	AGG SURF CSE B	TON	356.000				
40600275	BIT MATLS PR CT	POUND	6,401.000				
40600627	LB MM IL-9.5FG N50	TON	940.000				
40600982	HMA SURF REM BUTT JT	SQ YD	417.000				
40603082	HMA BC IL-19.0 FG N50	TON	1,582.000				
40603335	HMA SC "D" N50	TON	715.000				
40701856	HMA PAVT FD 8 3/4	SQ YD	2,644.000				
40701881	HMA PAVT FD 10	SQ YD	453.000				

State Job # - C-93-043-09

 Project Number
 Route

 County Name BUREAU- ACNHPP-0316/041/
 FAP 316

Code - 11 - - District - 3 - -

ltem Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
42000416	PCC PVT 9 3/4 JOINTD	SQ YD	12,434.000				
42001300	PROTECTIVE COAT	SQ YD	14,519.000				
42300200	PCC DRIVEWAY PAVT 6	SQ YD	315.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	468.000				
42300500	PCC DRIVEWAY PAVT 9	SQ YD	593.000				
42400300	PC CONC SIDEWALK 6	SQ FT	12,706.000				
42400800	DETECTABLE WARNINGS	SQ FT	193.000				
44000100	PAVEMENT REM	SQ YD	7,378.000				
44000200	DRIVE PAVEMENT REM	SQ YD	1,108.000				
44000500	COMB CURB GUTTER REM	FOOT	260.000				
44000600	SIDEWALK REM	SQ FT	2,042.000				
44003100	MEDIAN REMOVAL	SQ FT	580.000				
44004250	PAVED SHLD REMOVAL	SQ YD	3,881.000				
44201747	CL D PATCH T4 8	SQ YD	136.000				
48101200	AGGREGATE SHLDS B	TON	1,079.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
48203029	HMA SHOULDERS 8	SQ YD	2,099.000				
48203037	HMA SHOULDERS 10	SQ YD	104.000				
48300415	PCC SHOULDERS 9 3/4	SQ YD	1,024.000				
50104400	CONC HDWL REM	EACH	1.000				
50105220	PIPE CULVERT REMOV	FOOT	953.000				
50800105	REINFORCEMENT BARS	POUND	40,900.000				
51500100	NAME PLATES	EACH	1.000				
54001001	BOX CUL END SEC C1	EACH	2.000				
54003000	CONC BOX CUL	CU YD	262.000				
54010505	PCBC 5X5	FOOT	66.000				
542A5473	P CUL CL A 1 EQRS 18	FOOT	230.000				
542A5497	P CUL CL A 1 EQRS 42	FOOT	12.000				
542D0220	P CUL CL D 1 15	FOOT	252.000				
542D0223	PCULCLD1 18	FOOT	103.000				
542D0229	P CUL CL D 1 24	FOOT	50.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
542D5473	P CUL CL D 1 EQRS 18	FOOT	46.000				
542D5479	P CUL CL D 1 EQRS 24	FOOT	214.000				
5421D018	P CUL CL D 1 18 TEMP	FOOT	56.000				
54213450	END SECTIONS 15	EACH	11.000				
54213453	END SECTIONS 18	EACH	2.000				
54213459	END SECTIONS 24	EACH	2.000				
54213660	PRC FLAR END SEC 15	EACH	8.000				
54213663	PRC FLAR END SEC 18	EACH	2.000				
54213681	PRC FLAR END SEC 36	EACH	2.000				
54214293	END SEC EQV R-S 18	EACH	2.000				
54214299	END SEC EQV R-S 24	EACH	1.000				
54214923	PRCF END S AR EQRS 18	EACH	2.000				
550A0070	STORM SEW CL A 1 15	FOOT	229.000				
550A0090	STORM SEW CL A 1 18	FOOT	34.000				
550A0360	STORM SEW CL A 2 15	FOOT	540.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number		Route		
ACNHPP-0316/041/		FAP 316		

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
550A0380	STORM SEW CL A 2 18	FOOT	218.000				
550A0410	STORM SEW CL A 2 24	FOOT	156.000				
550A0450	STORM SEW CL A 2 36	FOOT	68.000				
55200400	STORM SEWERS JKD 15	FOOT	26.000				
55201300	STORM SEWERS JKD 36	FOOT	76.000				
56400400	FIRE HYDNTS RELOCATED	EACH	1.000				
60100060	CONC HDWL FOR P DRAIN	EACH	4.000				
60100955	PIPE DRAINS 15	FOOT	25.000				
60218300	MAN TA 4 DIA T1F OL	EACH	1.000				
60218400	MAN TA 4 DIA T1F CL	EACH	4.000				
60219570	MAN TA 4 DIA T3V F&G	EACH	4.000				
60221100	MAN TA 5 DIA T1F CL	EACH	1.000				
60222270	MAN TA 5 DIA T3V F&G	EACH	4.000				
60223800	MAN TA 6 DIA T1F CL	EACH	1.000				
60255500	MAN ADJUST	EACH	6.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

ltem Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
60266100	VV RECONST	EACH	1.000				
60266600	VALVE BOX ADJ	EACH	1.000				
60500305	FILL INLETS	EACH	1.000				
60605000	COMB CC&G TB6.24	FOOT	3,254.000				
60620000	CONC MED TSB6.24	SQ FT	7,798.000				
60624600	CORRUGATED MED	SQ FT	972.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	1,657.000				
63100045	TRAF BAR TERM T2	EACH	2.000				
63100169	TR BAR TRM T1 SPL FLR	EACH	2.000				
63200310	GUARDRAIL REMOV	FOOT	1,810.000				
66500105	WOV W FENCE 4	FOOT	336.000				
66600105	FUR ERECT ROW MARKERS	EACH	23.000				
66700205	PERM SURV MKRS T1	EACH	8.000				
66900200	NON SPL WASTE DISPOSL	CU YD	5,600.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
66900530	SOIL DISPOSAL ANALY	EACH	1.000				
67000400	ENGR FIELD OFFICE A	CAL MO	18.000				
67100100	MOBILIZATION	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	300.000				
70300100	SHORT TERM PAVT MKING	FOOT	992.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	23.000				
70300220	TEMP PVT MK LINE 4	FOOT	10,120.000				
70300280	TEMP PVT MK LINE 24	FOOT	68.000				
70300510	PAVT MARK TAPE T3 L&S	SQ FT	605.000				
70300520	PAVT MARK TAPE T3 4	FOOT	21,829.000				
70300550	PAVT MARK TAPE T3 8	FOOT	122.000				
70300560	PAVT MARK TAPE T3 12	FOOT	582.000				
70300570	PAVT MARK TAPE T3 24	FOOT	375.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	5,147.000				
72000100	SIGN PANEL T1	SQ FT	190.000				

C-93-043-09 State Job # -

County Name -**BUREAU--**

Code -11 - -District -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
72000200	SIGN PANEL T2	SQ FT	171.000				
72000300	SIGN PANEL T3	SQ FT	176.000				
72400100	REMOV SIN PAN ASSY TA	EACH	28.000				
72400200	REMOV SIN PAN ASSY TB	EACH	2.000				
72400500	RELOC SIN PAN ASSY TA	EACH	3.000				
72700100	STR STL SIN SUP BA	POUND	2,223.000				
73000100	WOOD SIN SUPPORT	FOOT	610.000				
73400100	CONC FOUNDATION	CU YD	4.000				
78000200	THPL PVT MK LINE 4	FOOT	6,998.300				
78000400	THPL PVT MK LINE 6	FOOT	652.200				
78000500	THPL PVT MK LINE 8	FOOT	344.500				
78000600	THPL PVT MK LINE 12	FOOT	222.400				
78004350	PREF PL PM TD INL L&S	SQ FT	712.400				
78004356	PREF PL PM TD INL L6	FOOT	1,206.600				
78004374	PREF PL PM TD INL L24	FOOT	160.600				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route	
ACNHPP-0316/041/	FAP 316	

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
78009004	MOD URETH PM LINE 4	FOOT	6,204.500				
78009006	MOD URETH PM LINE 6	FOOT	122.000				
78009008	MOD URETH PM LINE 8	FOOT	2,886.600				
78009012	MOD URETH PM LINE 12	FOOT	1,664.300				
78100100	RAISED REFL PAVT MKR	EACH	155.000				
78200410	GUARDRAIL MKR TYPE A	EACH	26.000				
78201000	TERMINAL MARKER - DA	EACH	2.000				
78300100	PAVT MARKING REMOVAL	SQ FT	19,533.000				
80500200	SERV INSTALL TY B	EACH	1.000				
81028240	UNDRGRD C GALVS 4	FOOT	340.000				
81028320	UNDRGRD C PVC 1	FOOT	236.000				
81028350	UNDRGRD C PVC 2	FOOT	876.000				
81028370	UNDRGRD C PVC 3	FOOT	46.000				
81028390	UNDRGRD C PVC 4	FOOT	62.000				
81028760	UNDRGRD C CNC 2 1/2	FOOT	200.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Project Number	Route
ACNHPP-0316/041/	FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
81400700	HANDHOLE PCC	EACH	9.000				
81400720	DBL HANDHOLE PCC	EACH	1.000				
81603040	UD 2#6 #8G XLPUSE 1	FOOT	1,608.000				
81702110	EC C XLP USE 1C 10	FOOT	969.000				
82102400	LUM SV HOR MT 400W	EACH	8.000				
83004600	LT P A 50MH 15DA	EACH	6.000				
83600357	LP F M 15BC 8" X 8'	EACH	6.000				
83800650	BKWY DEV COU SS SCRN	EACH	16.000				
84200600	REM LT U NO SALV	EACH	1.000				
84200804	REM POLE FDN	EACH	1.000				
85000200	MAIN EX TR SIG INSTAL	EACH	2.000				
86000100	MASTER CONTROLLER	EACH	1.000				
86200300	UNINTER POWER SUP EXT	EACH	2.000				
86400100	TRANSCEIVER - FIB OPT	EACH	2.000				
87300925	ELCBL C TRACER 14 1C	FOOT	1,540.000				

C-93-043-09 State Job # -

County Name -**BUREAU--**

(116) R,T

Code -District -3 - -

Section Number -

11 - -

**Project Number** Route ACNHPP-0316/041/ **FAP 316** 

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
87301215	ELCBL C SIGNAL 14 2C	FOOT	904.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	904.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	2,653.000				
87301255	ELCBL C SIGNAL 14 7C	FOOT	414.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	5,095.000				
87301805	ELCBL C SERV 6 2C	FOOT	18.000				
87301900	ELCBL C EGRDC 6 1C	FOOT	6,415.000				
87502440	TS POST GALVS 10	EACH	1.000				
87502500	TS POST GALVS 16	EACH	4.000				
87703040	STL COMB MAA&P 62	EACH	1.000				
87800100	CONC FDN TY A	FOOT	15.000				
87800150	CONC FDN TY C	FOOT	4.000				
87800415	CONC FDN TY E 36D	FOOT	10.000				
87800420	CONC FDN TY E 42D	FOOT	17.000				
88040070	SH P LED 1F 3S BM	EACH	4.000				

State Job # - C-93-043-09

County Name - BUREAU- -

Code - 11 - - District - 3 - -

Section Number - (116) R,T

 Project Number
 Route

 ACNHPP-0316/041/
 FAP 316

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
88040090	SH P LED 1F 3S MAM	EACH	5.000				
88040150	SH P LED 1F 5S BM	EACH	3.000				
88040160	SH P LED 1F 5S MAM	EACH	2.000				
88102825	PED SH P LED 1F BM CT	EACH	4.000				
88200410	TS BACKPLATE L F PLAS	EACH	14.000				
88500100	INDUCTIVE LOOP DETECT	EACH	12.000				
88600100	DET LOOP T1	FOOT	474.000				
88600700	PREFORM DETECT LOOP	FOOT	643.000				
88800100	PED PUSH-BUTTON	EACH	4.000				
89000100	TEMP TR SIG INSTALL	EACH	1.000				
89502210	MOD EX CONTR CAB	EACH	1.000				
89502375	REMOV EX TS EQUIP	EACH	2.000				
89502380	REMOV EX HANDHOLE	EACH	3.000				
89502385	REMOV EX CONC FDN	EACH	1.000				

CONTRACT NUMBER	66901	
THIS IS THE TOTAL BID		\$

#### NOTES:

- 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.

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

#### I. GENERAL

- **A.** Article 50 of the Code establishes the duty of all State CPOs, SPOs, 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. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances have 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 the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.
- ☐ I acknowledge, understand and accept these terms and conditions.

#### II. ASSURANCES

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.

#### A. Conflicts of Interest

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 State 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 State 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 calendar days after the officer, member, or employee takes office or is employed. The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

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. Information concerning the exemption process is available from the Department upon request.

#### B. Negotiations

Section 50-15. Negotiations.

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.

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.

#### C. Inducements

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 provide a submission to a vendor portal or 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, not making a submission to a vendor portal, or who withholds a bid or submission to a vendor portal in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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.

#### D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

CPOs, SPOs, procurement compliance monitors, 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.

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.

#### E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, 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 CPO.

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 or submission to a vendor portal is submitted.

#### F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, 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.

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.

#### G. Insider Information

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.

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.

☐ I acknowledge, understand and accept these terms and conditions for the above assurances.

#### **III. CERTIFICATIONS**

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. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

#### A. Bribery

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, or subcontracting under such a contract, 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, or which is signatory to the contract which the subcontract relates, 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 2012.
- (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, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

#### B. Felons

Section 50-10. Felons.

- (a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, 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.
- (b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code and every vendor's submission to a vendor portal shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

#### C. Debt Delinquency

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

#### D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 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 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

#### E. Section 42 of the Environmental Protection Act

Section 50-14 Environmental Protection Act violations.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

#### F. Educational Loan

Section 3 of the Educational Loan Default Act, 5 ILCS 385/3.

Pursuant to the Educational Loan Default Act no State agency shall contract with an individual for goods or services if that individual is in default on an educational loan.

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.

#### G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012, 720 ILCS 5/3BE-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.
- (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.

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.

#### H. International Anti-Boycott

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

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

#### I. Drug Free Workplace

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.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

#### J. Disclosure of Business Operations in Iran

Section 50-36 of the Code provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
- (2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Code.

Failure to make the disclosure required by the Code may cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:					
//	Company has no business operations in Iran to disclose.				
//	Company has business operations in Iran as disclosed on the attached document.				

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

In accordance with the provisions of Section 30-22 (6) of the 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.

Addtionally, Section 30-22 of the Code requires that the bidder certify that an Illinois office be maintained as the primary place of employment for persons employed for this contract.

NA-FEDERAL_	

The requirements of these certifications and disclosures are a material part of the contract, and the contractor shall require these certification provisions 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. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, but whose aggregate pending bids and proposals on state contracts exceed \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals or any other procurement opportunity is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Code, and that it makes the following certification:

The undersigned bidder certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

#### M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract.
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

		Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.
	Or	
		Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:
		address of person:ees, compensation, reimbursements and other remuneration paid to said person:
□lac	knc	welledge understand and accept these terms and conditions for the above certifications

#### **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 bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract 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 Code provides that all bids of more than \$50,000 and all submissions to a vendor portal 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, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

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. <u>Disclosure Forms</u>. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.** 

#### C. <u>Disclosure Form Instructions</u>

#### Form A Instructions for Financial Information & Potential Conflicts of Interest

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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 Form A must be signed and dated by an individual 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 60% of the annual salary of the Governor? YES NO
3.	Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's 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 60% of the annual salary of the Governor? YES NO
	(Note: Only one set of forms needs to be completed <u>per individual per bid</u> 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 an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual 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 <u>NOT APPLICABLE STATEMENT</u> of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

#### Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the bidder to ignore Form B. Form B must be completed, checked, 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 check 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.

### ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name		
Legal Address		
O'the Otate 7's		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by Section 50-35 of the 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 \$50,000, 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.

The current annual salary of the Governor is \$177,412.00.

#### DISCLOSURE OF FINANCIAL INFORMATION

 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 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR IND	FOR INDIVIDUAL (type or print information)					
NA	ME:					
AD	DRESS					
Тур	e of ownershi	p/distributable income share	:			
stoo		sole proprietorship	Partnership	other: (explain on separate sheet):		
% 0	r \$ value of ow	nership/distributable income sh	nare:			

- **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.

- Are you currently an officer or employee of either the Capitol Development Board or the Illinois State
   Toll Highway Authority?
   Yes \_\_\_No \_\_
- 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 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

3.	If you are currently appointed to or employed by any agency of the Salary exceeds 60% of the annual salary of the Governor, are you e (i) more than 7 1/2% of the total distributable income of your firm corporation, or (ii) an amount in excess of 100% of the annual salary	ntitled to receive n, partnership, association or
4.	If you are currently appointed to or employed by any agency of the Salary exceeds 60% of the annual salary of the Governor, are you a or minor children entitled to receive (i) more than 15% in aggregate of your firm, partnership, association or corporation, or (ii) an amour salary of the Governor?	nd your spouse of the total distributable income
	employment of spouse, father, mother, son, or daughter, including con previous 2 years.	
If your	answer is yes, please answer each of the following questions.	YesNo
1.	Is your spouse or any minor children currently an officer or employee Board or the Illinois State Toll Highway Authority?	of the Capitol Development YesNo
2.	Is your spouse or any minor children currently appointed to or employ of Illinois? If your spouse or minor children is/are currently appointed agency of the State of Illinois, and his/her annual salary exceeds 60 annual salary of the Governor, provide the name of the spouse and/of the State agency for which he/she is employed and his/her annual	d to or employed by any 0% of the or minor children, the name
3.	If your spouse or any minor children is/are currently appointed to or estate of Illinois, and his/her annual salary exceeds 60% of the annual are you entitled to receive (i) more than 71/2% of the total distributable firm, partnership, association or corporation, or (ii) an amount in excannual salary of the Governor?	I salary of the Governor, e income of your
4.	If your spouse or any minor children are currently appointed to or er State of Illinois, and his/her annual salary exceeds 60% of the annual and your spouse or any minor children entitled to receive (i) more that aggregate of the total distributable income from your firm, partnership (ii) an amount in excess of two times the salary of the Governor?	salary of the Governor, are you an 15% in the
		Yes No
unit of	e status; the holding of elective office of the State of Illinois, the govern local government authorized by the Constitution of the State of Illinoi currently or in the previous 3 years.	
	nship to anyone holding elective office currently or in the previous 2 ye daughter.	ears; spouse, father, mother, YesNo
Americ of the S	tive office; the holding of any appointive government office of the State a, or any unit of local government authorized by the Constitution of the State of Illinois, which office entitles the holder to compensation in exceptage of that office currently or in the previous 3 years.	State of Illinois or the statues
	nship to anyone holding appointive office currently or in the previous 2 daughter.	years; spouse, father, mother, YesNo
(g) Employ	yment, currently or in the previous 3 years, as or by any registered lob	byist of the State government. YesNo

e previous 2 years; spouse, father, mother, YesNo
s, by any registered election or reelection clerk of the State of Illinois, or any political the Federal Board of Elections.  YesNo
er; who was a compensated employee in the registered with the Secretary of State or any littee registered with either the Secretary of
Yes No
t of the bidder or offeror who is not identified ng, or may communicate with any State officer continuing obligation and must be promp nout the term of the contract. If no person

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s):	
Nature of disclosure:	
Track of displace of the second of the secon	
ADDU LOADUE OTATEMENT	
APPLICABLE STATEMENT  This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Und	lor
penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of knowledge.	
Completed by:	
Signature of Individual or Authorized Representative Date	_
NOT APPLICABLE STATEMENT	
Under penalty of perjury, I have determined that no individuals associated with this organization the criteria that would require the completion of this Form A.	meet
This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page	
Signature of Authorized Representative Date	_

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form B Other Contracts & Financial Related Information Disclosure

Contractor Na	ıme				
Legal Address	3				
City, State, Zi	р			-	
Telephone Nu	ımber		Email Address	Fax Number (if avail	able)
			s Form is required by Section 50 solicly available contract file. This		
	DISCLOSURE (	OF OTHER (	CONTRACTS AND PROCURE	MENT RELATED INF	ORMATION
has any per any other S	nding contracts (incl state of Illinois agend	luding leases cy: Yes _	ement Related Information. The s), bids, proposals, or other ongo	oing procurement rela	
	such as bid or proje		relationship by showing State o attach additional pages as nece		
		THE FOL	LOWING STATEMENT MUST	BE CHECKED	
			Signature of Authorized Representative	<del></del>	Date
			OWNERSHIP CERTIFICA	<u>ATION</u>	
	e certify that the foll of ownership.	owing stater	nent is true if the individuals for	all submitted Form A	A disclosures do not total
			erest is held by individuals recoutive income or holding less th		
	☐ Yes ☐ No	□ N/A (I)	Form A disclosure(s) established	d 100% ownership)	

#### **SPECIAL NOTICE TO CONTRACTORS**

The following requirements of the Illinois Department of Human Rights Act 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 Title 44, Illinois Administrative Code, Section 750.120. 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.



**PART I. IDENTIFICATION** 

Contract No. 66901
BUREAU County
Section (116)R,T
Project ACNHPP-0316(041)
Route FAP 316
District 3 Construction Funds

Dept. of Human Rig	hts #							Duratio	n of P	roject:	:							
Name of Bidder:																		
PART II. WORKFO A. The undersigned which this contract wo projection including a	bidder ha	as analyz e perform	ed mir ed, an	d for the	ne locat	ions fro	m whic	ch the b	idder re	cruits	employe	ees, and h	nerel	oy subm	its the fol	lowir con	ig workfo	
		TOT	AL Wo	rkforce	Projec	tion for	Contra	act						(	CURREN	ГЕМ	PLOYEE	S
				MING	ORITY	EMPLO	YEES			TR/	AINEES				TO BE		IGNED RACT	
JOB		TAL	DI	A O.K	LIICD	ANIIC		HER	APPI			HE JOB			OVEEC		MINC	
CATEGORIES	M	OYEES F	M	ACK F	M	ANIC F	M	IOR. F	M	ES F	M	INEES F	1	M	OYEES F	-	M	OYEES F
OFFICIALS (MANAGERS)		·						·						.,,	•			·
SUPERVISORS																		
FOREMEN																		
CLERICAL																		
EQUIPMENT OPERATORS																		
MECHANICS																		
TRUCK DRIVERS																		
IRONWORKERS																		
CARPENTERS																		
CEMENT MASONS																		
ELECTRICIANS																		
PIPEFITTERS, PLUMBERS																		
PAINTERS																		
LABORERS, SEMI-SKILLED																		
LABORERS, UNSKILLED																		
TOTAL																		
		BLE C	_1	- 4- · · ·	\k				7		Г	FOF	R DE	PARTM	1ENT USI	E ON	ILY	
EMPLOYEES	OTAL Tr	aining Pro TAL	ojectio T	n tor C	ontract		*0	THER	-			. 3.						
IN	_	OYEES	BL	ACK	HISF	ANIC		NOR.										
TRAINING	M	F	М	F	М	F	М	F	]									
APPRENTICES																		
ON THE JOB TRAINEES																		
*(	Other minori	ties are def	ined as	Asians (	(A) or Na	ive Amer	ıcans (N	٧).			<u>L</u>							

Note: See instructions on page 2

Please specify race of each employee shown in Other Minorities column.

BC 1256 (Rev. 12/11/07)

Contract No. 66901 BUREAU County Section (116)R,T Project ACNHPP-0316(041) Route FAP 316 District 3 Construction Funds

#### PART II. WORKFORCE PROJECTION - continued

B.		ed in "Total Employees" under Table A is the tot the undersigned bidder is awarded this contract		be employed in the
	The u	ndersigned bidder projects that: (number)		new hires would be
	recrui	ndersigned bidder projects that: (number) ted from the area in which the contract project is	located; and/or (number)	
	office	new hires wou or base of operation is located.	ld be recruited from the area in whi	ch the bidder's principal
		·		
C.		ed in "Total Employees" under Table A is a proje signed bidder as well as a projection of numbers		
	The u	ndersigned bidder estimates that (number)ectly employed by the prime contractor and that		persons will
	be dir	ectly employed by the prime contractor and that	(number)	persons will be
	empic	yed by subcontractors.		
PART	III. AFF	IRMATIVE ACTION PLAN		
A.	utiliza in any comm (geare utiliza	ndersigned bidder understands and agrees that it is projection included under <b>PART II</b> is determined to be category, and in the event that the understancement of work, develop and submit a writed to the completion stages of the contract it is a corrected. Such Affirmative Action Plantages in the contract of Human Rights.	nined to be an underutilization of misigned bidder is awarded this cont tten Affirmative Action Plan includ whereby deficiencies in minority	inority persons or women tract, he/she will, prior to ding a specific timetable and/or female employee
B.	submi	ndersigned bidder understands and agrees that ted herein, and the goals and timetable included part of the contract specifications.		
Comp	any		Telephone Number	
			-	
Addre	ss			
		NOTICE REGARD	ING SIGNATURE	
The B	iddor's	signature on the Proposal Signature Sheet will consti		wing signature block needs
		ed only if revisions are required.	tate the signing of this form. The folio	wing signature block needs
Signa	ture: 🗌		Title:	Date:
Instruct	ions:	All tables must include subcontractor personnel in addition	to prime contractor personnel.	
Table A	<b>\</b> -	Include both the number of employees that would be hir (Table B) that will be allocated to contract work, and inclushould include all employees including all minorities, appre	de all apprentices and on-the-job trainees.	The "Total Employees" column
Table E	3 -	Include all employees currently employed that will be alloc currently employed.	ated to the contract work including any appr	rentices and on-the-job trainees
Table C	<b>)</b> -	Indicate the racial breakdown of the total apprentices and o	on-the-job trainees shown in Table A.	

#### **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. <u>CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:</u>

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

Contract No. 66901 BUREAU County Section (116)R,T Project ACNHPP-0316(041) Route FAP 316 District 3 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.

	Firm Name	
(IF AN INDIVIDUAL)	Signature of Owner	
	Business Address	
	Firm Name	
	Ву	
(IF A CO-PARTNERSHIP)		
		Name and Address of All Members of the Firm:
	Corporate Name	
	Ву	
(IF A CORPORATION)		Signature of Authorized Representative
,		Typed or printed name and title of Authorized Representative
		7,4000.
	Attest	Cignoture
(IF A JOINT VENTURE, USE THIS SECTION	Duning a Addus a	Signature
FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)	Business Address	
	Corporate Name	
(IF A JOINT VENTURE)	, and the second	Signature of Authorized Representative
		To advantable and the state of December 1
		Typed or printed name and title of Authorized Representative
	Attest	
		Signature
	Business Address	
If more than two parties are in the joint venture,	places attach an addit	ional aignatura about

#### **Return with Bid**



### Division of Highways Annual Proposal Bid Bond

This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on	and shall be valid until 11:59 PM (CDST).
KNOW ALL PERSONS BY THESE PRESENTS, That We	
as PRINCIPAL, and	
price, or for the amount specified in the bid proposal under "	ne STATE OF ILLINOIS in the penal sum of 5 percent of the total bid 'Proposal Guaranty" in effect on the date of the Invitation for Bids, d STATE OF ILLINOIS, for the payment of which we bind ourselves,
	SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to tof Transportation, for various improvements published in the e.
the time and as specified in the bidding and contract document into a contract in accordance with the terms of the bidding ar coverages and providing such bond as specified with good and the prompt payment of labor and material furnished in the prosenter into such contract and to give the specified bond, the P penalty hereof between the amount specified in the bid propo	d proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within its; and if, after award by the Department, the PRINCIPAL shall enter and contract documents including evidence of the required insurance I sufficient surety for the faithful performance of such contract and for secution thereof; or if, in the event of the failure of the PRINCIPAL to RINCIPAL pays to the Department the difference not to exceed the sal and such larger amount for which the Department may contract oposal, then this obligation shall be null and void, otherwise, it shall
preceding paragraph, then Surety shall pay the penal sum to t Surety does not make full payment within such period of time	PAL has failed to comply with any requirement as set forth in the he Department within fifteen (15) days of written demand therefor. If e, the Department may bring an action to collect the amount owed. If attorney's fees, incurred in any litigation in which it prevails either in
In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer day of A.D.,	In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer  day of A.D.,
(Company Name)	(Company Name)
Ву	Ву
(Signature and Title)	(Signature of Attorney-in-Fact)
Notary for PRINCIPAL	Notary for SURETY
STATE OF	STATE OF
COUNTY OF	COUNTY OF
Signed and attested before me on (date)	Signed and attested before me on (date)
by	
(Name of Notary Public)	(Name of Notary Public)
(Seal) (Signature of Notary Public)	(Seal) (Signature of Notary Public)
(Date Commission Expires)	(Date Commission Expires)

signing the proposal(s) 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.

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By

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

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.

# Illinois Department of Transportation

#### **Return with Bid**

## Division of Highways Proposal Bid Bond

		Item No.	
		Letting Date	e
(NOW ALL PERSONS BY THE	SE PRESENTS, That We		
as PRINCIPAL, and			
the amount specified in the bid	proposal under "Proposal Guaranty" i	in effect on the date of the Invitation for	of 5 percent of the total bid price, or for r Bids, whichever is the lesser sum, well s, executors, administrators, successors
			omitted a bid proposal to the STATE OF retation Bulletin Item Number and Letting
specified in the bidding and cor with the terms of the bidding and with good and sufficient surety prosecution thereof; or if, in the pays to the Department the diffe	ntract documents; and if, after award documents including evide for the faithful performance of such event of the failure of the PRINCIP perence not to exceed the penalty here tract with another party to perform the	by the Department, the PRINCIPAL sence of the required insurance coverage contract and for the prompt payment AL to enter into such contract and to go for between the amount specified in the	RINCIPAL shall, within the time and as shall enter into a contract in accordance es and providing such bond as specified to of labor and material furnished in the give the specified bond, the PRINCIPAL bid proposal and such larger amount for the this obligation shall be null and void,
hen Surety shall pay the penal within such period of time, the [	sum to the Department within fiftee	n (15) days of written demand therefo ollect the amount owed. Surety is liable	as set forth in the preceding paragraph, r. If Surety does not make full payment e to the Department for all its expenses,
n TESTIMONY WHEREOF, caused this instrument to be day of		In TESTIMONY WHEREOF, instrument to be signed by its day of	the said SURETY has caused this officer  A.D.,
(Compa	any Name)	(Com	pany Name)
Зу		Ву	
(Sign	ature and Title)		e of Attorney-in-Fact)
Notary for PRINCIPAL		Notary for SURETY	
STATE OF		STATE OF	
COUNTY OF		COUNTY OF	
Signed and attested before r	ne on (date)	Signed and attested before m	ne on (date)
(Name of	Notary Public)	(Name o	f Notary Public)
(Seal)		(Seal)	
,,	(Signature of Notary Public)		(Signature of Notary Public)
	(Date Commission Expires)	_	(Date Commission Expires)
proposal the Principal is en		oid bond has been executed and	Electronic Bid Bond. By signing the the Principal and Surety are firmly
Electronic Bid Bond ID #	Company/Bidder Nan	ne	Signature and Title



#### **DBE Utilization Plan**

#### (1) Policy

It is public policy that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

#### (2) Obligation

Date

The contractor agrees to ensure that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

(3) Pro	ject and Bid Identification			
Complet	te the following information concerning the project and bid:			
Route		Total Bid		_
Section		Contract DBE Goal		
Project			(Percent)	(Dollar Amount)
County				
Letting [	Date			
Contrac	t No.			
Letting I	Item No.			
(4) Ass	surance			
	in my capacity as an officer of the undersigned bidder (or bidding company: (check one)  Meets or exceeds contract award goals and has provided do Disadvantaged Business Participation percent  Attached are the signed participation statements, forms SBE use of each business participating in this plan and assuring the work of the contract.  Failed to meet contract award goals and has included good for provided participation as follows:  Disadvantaged Business Participation percent  The contract goals should be accordingly modified or waiv support of this request including good faith effort. Also a required by the Special Provision evidencing availability and	cumented participation as fort  2025, required by the Spectat each business will perfort aith effort documentation to the ed. Attached is all informattached are the signed participation.	cial Provision evident a commercial meet the goals a stion required by articipation state	dencing availability and ly useful function in the and that my company has the Special Provision in the ments, forms SBE 2025,
	business will perform a commercially useful function in the wo			
Bv	Company	The "as read" Low Bidder is re		•
•		Submit only one utilization pla submitted in accordance with		
Title		Bureau of Small Business Ent	erprises	Local Let Projects

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.

2300 South Dirksen Parkway

Springfield, Illinois 62764

Submit forms to the

Local Agency



### **DBE Participation Statement**

Subcontractor	Registration Num	ber		L	etting	
Participation Statement				Item No.		
(1) Instruction	าร			С	ontract No.	
accordance w	ith the special prov	r each disadvantaged buvision and will be attach cking participation items	ed to the Utilization Pl	an form. If addition	nal space is needed	l complete an
(2) Work:						
Please indicat	te: J/V	Manufacturer	Supplier (60%)	Subcor	tractor	Trucking
Pay Item No.	Descri	ption (Anticipated items	for trucking)*	Quantity	Unit Price	Total
(2) Doutiel De	umant Itama (Far	any of the above items y	uhiah ava navtial nav it	a-ma)	Total	
	ist be sufficient to d	any of the above items v letermine a Commercially			work and subcontrac	t dollar amount:
subcontract, it	is to be a second-t must be clearly in	tier subcontractor, or if the dicated on the DBE Par	ticipation Statement, a	and the details of the	ne transaction fully	explained.
In the event a contract, the p	DBE subcontractorime must submit	or second-tiers a portion a DBE Participation Sta	of its subcontract to o tement, with the detail	ne or more subcor s of the transaction	ntractors during the n(s) fully explained.	work of a
The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor or 1 <sup>st</sup> Tier subcontractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.						
ű	nature for Contractor _	1 <sup>st</sup> Tier 2 <sup>nd</sup> Tier		•	DBE Firm 1 <sup>st</sup> Tier	2 <sup>nd</sup> Tier
Contact Pers	on		Cont	act Person		
Title			Title			
Firm Name Firm Name						
Address			Addı	ess		
City/State/Zip			City/	State/Zip		
Phone			Phoi	ne		
Email Addres	ss		Ema	il Address		
					E	
The Department of To-	anapartation is requestive all	and any and information that in passage	with accomplish the statut	ann an airitimed i mades 454-	to and WC	

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the state and federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Management Center.

### PROPOSAL ENVELOPE



## **PROPOSALS**

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

Item No.	Item No.	Item No.

#### Submitted By:

lame:	
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. 66901 BUREAU County Section (116)R,T Project ACNHPP-0316(041) Route FAP 316 District 3 Construction Funds



### **SUBCONTRACTOR DOCUMENTATION**

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled <u>State Required Ethical Standards Governing Subcontractors</u>.

## STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, 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.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

#### A. Bribery

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, or subcontracting under such a contract, 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, or which is signatory to the contract to which the subcontract relates, 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 2012.
- (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, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

#### B. Felons

Section 50-10. Felons.

- (a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, 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.
- (b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

#### C. <u>Debt Delinquency</u>

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

#### D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, 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 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

#### E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

Name of Subcontracting Company

Authorized Officer

Date

#### SUBCONTRACTOR DISCLOSURES

#### I. DISCLOSURES

**A.** The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract.

#### B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

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 subcontracting entity or its parent entity, whichever is less, unless the subcontractor 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 subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

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

2. <u>Disclosure Forms</u>. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.** 

#### C. <u>Disclosure Form Instructions</u>

#### Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor 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 subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor 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 an individual that is authorized to execute contracts for the subcontracting 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 60% of the annual salary of the Governor? YESNO
3.	Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES NO
	(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)
4.	Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES NO
	(Note: Only one set of forms needs to be completed <u>per individual per subcontract</u> even if a specific individual would require a yes answer to more than one question.)
'FS"	answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in

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

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

#### Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.* 

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

## ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form A Subcontractor: Financial Information & Potential Conflicts of Interest Disclosure

Subcontractor Name		
Subcontractor Name		
Legal Address		
Legal Address		
City, State, Zip		
Oity, State, Zip		
Telephone Number	Email Address	Fax Number (if available)
relephone Number	Liliali Addiess	i ax inuitibei (ii available)

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract 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 subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all openended 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.

The current annual salary of the Governor is \$177,412.00.

FOR INDIVIDUAL (type or print information)

#### **DISCLOSURE OF FINANCIAL INFORMATION**

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (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 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

TOTT INDIVIDUAL (	type or print information)		
NAME:			
ADDRESS _			
Type of owner	ship/distributable income share:	:	
stock % or \$ value of	sole proprietorship ownership/distributable income sh	Partnershipare:	other: (explain on separate shee
	nterest relationships apply. If the		dicate which, if any, of the following is "Yes", please attach additional
(a) State employme	nt, currently or in the previous 3	years, including contractu	ual employment of services. Yes No
If your answer is	yes, please answer each of the	e following questions.	<u> </u>
-	currently an officer or employee way Authority?	e of either the Capitol Deve	elopment Board or the Illinois State YesNo
currently exceeds	currently appointed to or emplo appointed to or employed by a 60% of the annual salary of the or which you are employed and	ny agency of the State of le Governor, provide the na	Illinois, and your annual salary

	3.	If you are currently appointed to or employed by any agency of t salary exceeds 60% of the annual salary of the Governor, are yo (i) more than 7 1/2% of the total distributable income of your corporation, or (ii) an amount in excess of 100% of the annual salary	ou entitled to receive firm, partnership, association or
	4.	If you are currently appointed to or employed by any agency of the salary exceeds 60% of the annual salary of the Governor, are your minor children entitled to receive (i) more than 15% in the income of your firm, partnership, association or corporation, or the salary of the Governor?	ou and your spouse aggregate of the total distributable
(b)		employment of spouse, father, mother, son, or daughter, includir previous 2 years.	ng contractual employment services  YesNo
	If	your answer is yes, please answer each of the following question	
	1.	Is your spouse or any minor children currently an officer or empl Board or the Illinois State Toll Highway Authority?	oyee of the Capitol Development YesNo
		Is your spouse or any minor children currently appointed to or er of Illinois? If your spouse or minor children is/are currently agency of the State of Illinois, and his/her annual salary ex annual salary of the Governor, provide the name of your spouse of the State agency for which he/she is employed and his/her an	appointed to or employed by any ceeds 60% of the and/or minor children, the name
	3.	If your spouse or any minor children is/are currently appointed to State of Illinois, and his/her annual salary exceeds 60% of the are you entitled to receive (i) more than 71/2% of the total distribution, partnership, association or corporation, or (ii) an amount annual salary of the Governor?	nnual salary of the Governor, utable income of your
	4.	If your spouse or any minor children are currently appointed to State of Illinois, and his/her annual salary exceeds 60% of the are you and your spouse or minor children entitled to receive aggregate of the total distributable income of your firm, partner (ii) an amount in excess of two times the salary of the Governor?	nual salary of the Governor, (i) more than 15 % in the ship, association or corporation, or
(-)	<b>-</b> 1		YesNo
(C)	unit of	ve status; the holding of elective office of the State of Illinois, the glocal government authorized by the Constitution of the State of Illicurrently or in the previous 3 years.	
(d)		onship to anyone holding elective office currently or in the previour daughter.	s 2 years; spouse, father, mother, YesNo
(e)	Americ of the	ntive office; the holding of any appointive government office of the ca, or any unit of local government authorized by the Constitution State of Illinois, which office entitles the holder to compensation is charge of that office currently or in the previous 3 years.	of the State of Illinois or the statutes
		onship to anyone holding appointive office currently or in the previous daughter.	ous 2 years; spouse, father, mother, YesNo
(g)	Emplo	yment, currently or in the previous 3 years, as or by any registere	d lobbyist of the State government. YesNo

(h) Relationship to anyone who is or was a registered lobbyist son, or daughter.	in the previous 2 years; spouse, father, mother, YesNo
(i) Compensated employment, currently or in the previous 3 y committee registered with the Secretary of State or any contact action committee registered with either the Secretary of States	ounty clerk of the State of Illinois, or any political
(j) Relationship to anyone; spouse, father, mother, son, or data last 2 years by any registered election or re-election common county clerk of the State of Illinois, or any political action of State or the Federal Board of Elections.	ttee registered with the Secretary of State or any ommittee registered with either the Secretary of
	YesNo
Communication Disclosure.	
Disclose the name and address of each lobbyist and other a Section 2 of this form, who is has communicated, is communic employee concerning the bid or offer. This disclosure i supplemented for accuracy throughout the process and throidentified, enter "None" on the line below:	eating, or may communicate with any State officer or s a continuing obligation and must be promptly
Name and address of person(s):	

3

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly

supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below: Name of person(s): Nature of disclosure: APPLICABLE STATEMENT This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge. Completed by: Signature of Individual or Authorized Officer Date **NOT APPLICABLE STATEMENT** Under penalty of perjury, 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 SUBCONTRACTOR listed on the previous page. Signature of Authorized Officer Date

## ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form B Subcontractor: Other Contracts & Financial Related Information Disclosure

Subcontractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)
Disclosure of the information contained in information shall become part of the publicl a total value of \$50,000 or more, from subcontracts.	y available contract file. This Form	B must be completed for subcontracts with
DISCLOSURE OF OTHER CONTRA	CTS, SUBCONTRACTS, AND PRO	OCUREMENT RELATED INFORMATION
1. Identifying Other Contracts & Procure any pending contracts, subcontracts, includ any other State of Illinois agency: Ye If "No" is checked, the subcontractor only	ing leases, bids, proposals, or othe sNo	r ongoing procurement relationship with
2. If "Yes" is checked. Identify each such information such as bid or project number (a INSTRUCTIONS:		
THE FOLLO	WING STATEMENT MUST BE CH	ECKED
П		
	Signature of Authorized Officer	Date
	OWNERSHIP CERTIFICATION	
Please certify that the following statement is of ownership	s true if the individuals for all submit	ted Form A disclosures do not total 100%
Any remaining ownership interest is parent entity's distributive income o		han \$106,447.20 of the bidding entity's or interest.
□ Ves □ No □ N/A (Form	A disclosura(s) established 100% of	wnershin)

# 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. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 a.mSeptember 18, 2015. 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 10:00 a.m.
- **2. DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 66901
BUREAU County
Section (116)R,T
Project ACNHPP-0316(041)
Route FAP 316
District 3 Construction Funds

Reconstruction of IL 26 with a 4-lane divided roadway south of Progress Drive and widening and resurfacing north of Progress Drive, also widening of I-80 WB exit ramp, all located in Bureau County.

- 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

Randall S. Blankenhorn, Secretary

# INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2015

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

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

#### SUPPLEMENTAL SPECIFICATIONS

<u> </u>	<u>ec. Sec.</u> <u> </u>	<u>rage no.</u>
101	Definition of Terms	1
102	Advertisement, Bidding, Award, and Contract Execution	2
105	Control of Work	3
106	Control of Materials	5
107	Legal Regulations and Responsibility to Public	6
108	Prosecution and Progress	
109	Measurement and Payment	15
202	Earth and Rock Excavation	
211	Topsoil and Compost	
250	Seeding	
253	Planting Woody Plants	21
280	Temporary Erosion and Sediment Control	23
312	Stabilized Subbase	
406	Hot-Mix Asphalt Binder and Surface Course	25
407	Hot-Mix Asphalt Pavement (Full-Depth)	28
420	Portland Cement Concrete Pavement	20
424	Portland Cement Concrete Sidewalk	
440	Removal of Existing Pavement and Appurtenances	
502	Excavation for Structures	
503	Concrete Structures	
504	Precast Concrete Structures	
506	Cleaning and Painting New Steel Structures	
512	Piling	42
516	Drilled Shafts	
521	Bearings	44
540	Box Culverts	45
588	Bridge Relief Joint System	46
589	Elastic Joint Sealer	
602	Catch Basin, Manhole, Inlet, Drainage Structure, and Valve Vault Construction, Adjustment,	
	and Reconstruction	49
603	Adjusting Frames and Grates of Drainage and Utility Structures	
606	Concrete Gutter, Curb, Median, and Paved Ditch	
610	Shoulder Inlets with Curb	53
639	Precast Prestressed Concrete Sight Screen	
642	Shoulder Rumble Strips	55
643	Impact Attenuators	56
644	High Tension Cable Median Barrier	
669	Removal and Disposal of Regulated Substances	
670	Engineer's Field Office and Laboratory	
701	Work Zone Traffic Control and Protection	
706 707	Impact Attenuators, Temporary	
707	Movable Traffic Barrier	
708	Temporary Water Filled Barrier	
730	Wood Sign Support	
780	Pavement Striping	
816	Unit Duct	
836	Pole Foundation	
860	Master Controller	83

1001	Cement	84
1003	Fine Aggregates	85
1004	Coarse Aggregates	87
1006	Metals	91
1011	Mineral Filler	93
1017	Packaged, Dry, Combined Materials for Mortar	94
1018	Packaged Rapid Hardening Mortar or Concrete	95
1019	Controlled Low-Strength Material (CLSM)	96
1020	Portland Cement Concrete	97
1024	Grout and Nonshrink Grout	136
1030	Hot-Mix Asphalt	137
1040	Drain Pipe, Tile, Drainage Mat, and Wall Drain	142
1042	Precast Concrete Products	143
1069	Pole and Tower	144
1070	Foundation and Breakaway Devices	145
1073	Controller	146
1081	Materials for Planting	147
1082	Preformed Bearing Pads	148
1083	Elastomeric Bearings	149
1088	Wireway and Conduit System	150
1095	Pavement Markings	152
1101	General Equipment	155
1102	Hot-Mix Asphalt Equipment	
1103	Portland Cement Concrete Equipment	
1105	Pavement Marking Equipment	160
1106	Work Zone Traffic Control Devices	161

#### **RECURRING SPECIAL PROVISIONS**

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

CHE	CK S	SHEET#	PAGE NO.
1	Х	Additional State Requirements for Federal-Aid Construction Contracts	163
2	Х	Subletting of Contracts (Federal-Aid Contracts)	166
3	Х	EEO	
4		Specific EEO Responsibilities Non Federal-Aid Contracts	177
5		Required Provisions - State Contracts	
6		Asbestos Bearing Pad Removal	188
7		Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	
8		Temporary Stream Crossings and In-Stream Work Pads	
9		Construction Layout Stakes Except for Bridges	
10	Χ	Construction Layout Stakes	
11		Use of Geotextile Fabric for Railroad Crossing	197
12		Subsealing of Concrete Pavements	199
13		Hot-Mix Asphalt Surface Correction	
14		Pavement and Shoulder Resurfacing	
15		Reserved	
16		Patching with Hot-Mix Asphalt Overlay Removal	
17		Polymer Concrete	
18		PVC Pipeliner	
19		Pipe Underdrains	211
20	Х	Guardrail and Barrier Wall Delineation	
21		Bicycle Racks	216
22		Reserved	
23		Temporary Portable Bridge Traffic Signals	219
24	Х	Work Zone Public Information Signs	
25	Χ	Nighttime Inspection of Roadway Lighting	222
26		English Substitution of Metric Bolts	223
27		English Substitution of Metric Reinforcement Bars	
28		Calcium Chloride Accelerator for Portland Cement Concrete	225
29		Reserved	226
30		Quality Control of Concrete Mixtures at the Plant	227
31		Quality Control/Quality Assurance of Concrete Mixtures	235
32		Digital Terrain Modeling for Earthwork Calculations	251
33	Χ		
34		Preventive Maintenance – Bituminous Surface Treatment	
35		Preventive Maintenance – Cape Seal	260
36		Preventive Maintenance – Micro-Surfacing	
37		Preventive Maintenance – Slurry Seal	
38		Temporary Raised Pavement Markers	
39		Restoring Bridge Approach Pavements Using High-Density Foam	

## TABLE OF CONTENTS

LOCATION OF PROJECT	1
DESCRIPTION OF PROJECT	1
GRANULAR MATERIALS	1
STATUS OF UTILITIES TO BE ADJUSTED:	2
BORROW AND FURNISHED EXCAVATION	4
MULCH METHOD 2	4
AGGREGATE SURFACE COURSE, TYPE B	4
HOT-MIX ASPHALT SURFACE COURSE, CUT OFF DATE	5
PORTLAND CEMENT CONCRETE PAVING REQUIREMENTS	5
AGGREGATE SHOULDERS TYPE B	5
STORM SEWER (WATER MAIN REQUIREMENTS)	
PERMANENT SURVEY MARKERS, TYPE I	6
UNPUBLISHED TELEPHONE NUMBERS FOR ENGINEER'S FIELD OFFICE	6
PIPE UNDERDRAINS 4" (MODIFIED)	7
SHOULDER STABILIZATION AT GUARDRAIL	7
TRAFFIC CONTROL PLAN	7
PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL	9
MAXIMUM DROP-OFFS FOR TWO-LANE, TWO-WAY TRAFFIC	9
TEMPORARY INFORMATION SIGNING	9
LOOP DETECTOR TESTING	10
SERVICE INSTALLATION, OF THE TYPE SPECIFIED	11
UNDERGROUND CONDUIT	12
INDUCTIVE LOOP DETECTOR	12
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	13
CONCRETE HANDHOLE OR CONCRETE DOUBLE HANDHOLE	15
FIBER OPTIC CABLE IN CONDUIT	15
INLETS (SPECIAL)	15
CONCRETE MEDIAN (SPECIAL)	16
ISLAND PAVEMENT (SPECIAL)	16
PIPE HANDRAIL, SPECIAL	16
CONCRETE ISLAND (SPECIAL)	16
PAVED DITCH (SPECIAL)	17

ISLAND REMOVAL	17
TEMPORARY PAVEMENT REMOVAL	17
HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) (FOR TEMPORARY PAVEMENT)	17
HOT-MIX ASPHALT DRIVEWAY PAVEMENT	18
SAW CUTS	18
SANITARY SEWERS AND MANHOLES	18
STEEL CASING PIPE	20
STEEL CASING PIPE IN TRENCH	20
SANITARY SEWER IN CASING PIPE	21
FIRE HYDRANTS TO BE RELOCATED	21
INSTALL WATER SERVICE COMPLETE	22
REQUIREMENTS WHEN WORKING NEAR EXISTING PIPELINES	23
HOT-MIX ASPHALT MIXTURE IL-9.5FG (BMPR)	24
TEMPORARY CONSTRUCTION/WATERWAY PERMITS (CORPS OF ENGINEERS)	
TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	28
STRINGLESS CONSTRUCTION OPTION	29
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	29
MASTER CONTROLLER IN TYPE V CABINET	30
TEMPORARY TRAFFIC SIGNAL INSTALLATION	33
MODIFY EXISTING CONTROLLER CABINET	34
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	35
OPTIMIZE TRAFFIC SIGNAL SYSTEM	35
REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES	39
COARSE AGGREGATE QUALITY (BDE)	42
COATED GALVANIZED STEEL CONDUIT (BDE)	43
COILABLE NONMETALLIC CONDUIT (BDE)	44
CONCRETE BOX CULVERTS WITH SKEWS $\leq$ 30 DEGREES REGARDLESS OF D	ESIGN
FILL AND SKEWS > 30 DEGREES WITH DESIGN FILLS > 5 FEET (BDE)	44
CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)	44
CONTRACT CLAIMS (BDE)	45
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)	46
EQUAL EMPLOYMENT OPPORTUNITY (BDE)	57
FRICTION AGGREGATE (BDE)	60
GROOVING FOR RECESSED PAVEMENT MARKINGS (BDE)	63

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)	65
HOT-MIX ASPHALT - MIXTURE DESIGN COMPOSITION AND VOLUM	ETRIC
REQUIREMENTS (BDE)	67
HOT-MIX ASPHALT - MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)	77
HOT MIX ASPHALT – PRIME COAT (BDE)	81
LRFD PIPE CULVERT BURIAL TABLES (BDE)	85
LRFD STORM SEWER BURIAL TABLES (BDE)	104
MECHANICAL SIDE TIE BAR INSERTER (BDE)	113
PAVED SHOULDER REMOVAL (BDE)	114
PAVEMENT PATCHING (BDE)	115
PAVEMENT STRIPING - SYMBOLS (BDE)	
PRECAST CONCRETE HANDHOLE (BDE)	116
PREFORMED PLASTIC PAVEMENT MARKING TYPE D - INLAID (BDE)	117
PROGRESS PAYMENTS (BDE)	119
RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)	120
RETROREFLECTIVE SHEETING FOR HIGHWAY SIGNS (BDE)	131
REINFORCEMENT BARS (BDE)	133
SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)	134
SPEED DISPLAY TRAILER (BDE)	
TRACKING THE USE OF PESTICIDES (BDE)	135
URBAN HALF ROAD CLOSURE WITH MOUNTABLE MEDIAN (BDE)	
WARM MIX ASPHALT (BDE)	
WEEKLY DBE TRUCKING REPORTS (BDE)	
WORKING DAYS (BDE)	138
BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)	
FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)	140
STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)	144
U.S. ARMY CORPS OF ENGINEERS PERMIT	148
SWPPP	152
ILLINOIS DEPARTMENT OF NATURAL RESOURCES PERMIT	161
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PERMIT	164

#### STATE OF ILLINOIS

#### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction, Adopted January 1, 2012", the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein, which apply to and govern the construction of FAP Route 316 (IL 26), Project ACNHPP-0316(041), Section (116)R,T, Bureau County, Contract No. 66901, 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**

IL 26 from the Red Covered Bridge Road to Interstate 80 westbound ramps.

#### **DESCRIPTION OF PROJECT**

Removal and reconstruction of IL 26 with a concrete 4-lane urban divided roadway section south of Progress Drive and bituminous widening and resurfacing of IL 26 north of Progress Drive and widening of I-80 westbound exit ramp. Project includes Portland cement concrete paving, hot-mix asphalt paving, Portland cement concrete multi-use path, embankment, ditch grading, pipe culvert installation, cast-in-place box culvert extensions, precast box culvert constructions, storm sewer and general grading.

#### **GRANULAR MATERIALS**

Effective: November 26, 2013

Revise the title of Article 1003.04 of the Standard Specifications to read:

" 1003.04 Fine Aggregate for Bedding, Trench Backfill, Embankment, Porous Granular Backfill, Sand Backfill for Underdrains, and French Drains."

Revise Article 1003.04(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradations for granular embankment, granular backfill, bedding, and trench backfill for pipe culverts and storm sewers shall be FA 1, FA 2, or FA 6 through FA 21.

The fine aggregate gradation for porous granular embankment, porous granular backfill, french drains, and sand backfill for underdrains shall be FA 1, FA 2, or FA 20, except the percent passing the No. 200 (75  $\mu$ m) sieve shall be 2±2."

Revise Article 1004.05(c) of the Standard Specifications to read:

"(c) Gradation. The coarse aggregate gradations shall be as follows.

Application	Gradation
Blotter	CA 15
Granular Embankment, Granular Backfill,	CA 6, CA 9, CA 10, CA 12, CA17, CA18,
and Bedding	and CA 19
Porous Granular Embankment, Porous	CA 7, CA 8, CA 11, CA 15, CA 16 and
Granular Backfill, and French Drains	CA 18
Trench Backfill and Bedding for Pipe	CA 6, CA 7 <sup>1</sup> /, CA 9, CA 10, CA 11 <sup>1</sup> /, CA 12,
Culverts and Storm Sewers	CA17, CA18, and CA 19

1/ For gradations CA 7 or CA 11, lifts may exceed 8 in. (200mm) in depth provided the material is seated to the satisfaction of the Engineer.

#### STATUS OF UTILITIES TO BE ADJUSTED:

Effective January 1, 2007

Revised January 24, 2011

Name & Address of Utility	Type	Location	Estimated Date Relocation Complete
Ameren Illinois 340 Raccuglia Drive LaSalle, IL 61301 (Ameren Ref# IPNO081106)	Overhead Electric 34.5KV	On west side, Sta. 1625 to 1637 RT	Approved permit to relocate poles. Permit 3-14291-14. Crews to start work March 2015. Utilities with joint attachments will need to relocate to new electric poles prior to removal of old poles.
Corn Belt Energy Corp 1702 West Peru Street Princeton, IL 61356	Overhead Electric	On east side, Sta. 1625 to 1637 LT	Potential conflict with pole and anchor at Sta. 1632 LT. To be discussed at Preconstruction meeting.
City of Princeton Electric 2 S. Main Street Princeton, IL 61356	Overhead Electric	Joint on Ameren poles Sta. 1625 to 1637 RT City of Princeton poles on west and east side Sta. 1628 to 1646/278 to 294 LT & RT	Relocate to new Ameren Poles.  Relocate poles to ROW. Some poles on east side will be eliminated. Anticipate complete by July 1 <sup>st</sup> .

Nicor Gas 1844 Ferry Road Naperville, IL 60563 (Nicor Ref# SC7635)	3" MOP Gas 4" MOP Gas	Sta. 1625 to 1637 LT Sta. 1625 to 1646/278 to 281 LT	Approved permit to install new gas main on the west side (RT). All existing gas to be abandoned. Crews to start March 2015. Permit 3-12566-11 Nicor WO 127743
	2" MOP Gas	Sta. 281 to 287 LT	No conflicts anticipated.
Comcast Cable 4450 Kishwaukee Street Rockford, IL 61109	Underground CATV	Sta. 278 to 295 RT, crossing road Sta. 260	Approved permit to install 2 – 2" poly pipes. Permit 3-14337-14 Crews working.
(Comcast Ref# CH29667B)	Overhead CATV	Joint on electric poles various locations throughout	CATV to relocate to new electric poles. Permit required.
Frontier Communications 111 S. Main Street Kewaunee, IL 61443	Underground Telephone	On west side, Sta. 1638 to 1646/278 to 293 RT	Conflicts throughout. Permit required.
	Overhead Telephone	Throughout at various locations on west Side (RT)	Conflicts throughout. Permit required.
Natural Gas Pipeline Company of America 370 Van Gordon Street Lakewood, CO 80228	24" Pipeline (in 28" casing) 36" Oipeline (in 42" casing)	Crossing IL 26 at Sta. 1645 <u>+</u> 37  Crossing IL 26 at Sta. 1645+87	Pipeline to extend casings, vent pipes and markers to proposed ROW. Reimbursable agreement and permit
(pipeline MP 910)		_	pending.
City of Princeton 2 S. Main Street Princeton, IL 61356	Water Main and Sanitary Sewer	Various locations Throughout.	Various adjustments to be done as part of the roadway project.

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Section 102 and Articles 105.07, 107.20, 107.37, 107.38, 107.39, 107.40, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

The estimated utility relocation dates should be part of the progress schedule submitted by the Contractor.

\*\* Above utility relocation information reflected as of January 12, 2015, relocation complete dates are unknown at this time due to right of way acquisitions. Utility relocations are anticipated to be complete by approximately July 1, 2015. Per SB 699 (90 day utility relocation law), once the proposed right of way is clear to award the project, a notice will be sent to the utility companies instructing them to have their facilities relocated within 90 days.

#### **BORROW AND FURNISHED EXCAVATION**

Revised January 1, 2010

In addition to the requirements of Section 204 of the Standard Specifications for suitable materials, the following restrictions shall apply:

- 1. The moisture content of the material as it is incorporated into the embankment shall be between 80% to 110% of AASHTO T99 optimum.
- 2. A 3 ft. (1 m) minimum cover of other suitable material shall be maintained outside of and on top of the embankment.
- 3. If the liquid limit of the material is greater than or equal to 50, the material shall not be used for capping, shall not be placed within 20 feet of any structure, and shall not be placed in locations where it may come into contact with water.
- 4. Embankment capping material (as outlined in #2) shall meet non-frost susceptibility criteria as outlined in the statewide Geotechnical Manual. Materials are considered frost susceptible when the soil contains at least 65% silt and sand content, according to AASHTO T88 and the Plasticity Index is less than 12.

#### **MULCH METHOD 2**

Effective August 1, 1994

Revised January 1, 2007

Article 251.03 Method 2 Procedure 1 of the Standard Specifications shall be required for this improvement.

#### AGGREGATE SURFACE COURSE, TYPE B

Effective January 1, 2007

Add the following to Article 402.07 of the Standard Specifications:

The top layer shall be given a final rolling with a roller meeting the requirements of Article 1101.01.

## HOT-MIX ASPHALT SURFACE COURSE, CUT OFF DATE

Effective January 1, 2007

Placement of Hot-Mix Asphalt Surface Course will not be permitted after October 15 unless approved, in writing, by the Engineer.

## PORTLAND CEMENT CONCRETE PAVING REQUIREMENTS

The following requirements supersede those contained in Section 420 of the Standard Specifications:

Article 420.03(c). A mechanical concrete spreader will not be required.

Article 420.03(d). Revise Article 1103.13(b) to read: "The finishing machine shall be of a type approved by the Engineer, shall be self-propelled and shall be capable of striking off, consolidating and finishing concrete of the consistency required by the specifications to the proper crown and grade."

Article 420.03(e). A mechanical longitudinal float will not be required.

Article 420.09. Revise the first paragraph of Article 420.09(a)(1) Vibratory Method. to read:

"After the concrete has been struck off, it shall be given the required consolidation by the vibratory method or by other means which will obtain a uniform and satisfactory density throughout the pavement. If the vibratory method is used, the vibrating impulses shall be applied directly to the concrete through an apparatus especially designed for this purpose and so constructed as to operate satisfactorily ahead of, or as an integral part of, the finishing machine in such a manner that the vibratory impulses are transmitted through the concrete mass with sufficient intensity to consolidate it throughout its entire depth and width. Not more than one pass of the vibratory equipment shall be made over the pavement surface. The Contractor shall have a satisfactory tachometer available for checking the operating frequency of the vibrating elements."

Article 420.09(b). Longitudinal Floating, Hand Method, will be permitted.

## AGGREGATE SHOULDERS TYPE B

(Effective July 1, 1990; Revised January 1, 2007)

The aggregate shoulder shall be constructed according to Section 481 of the Standard Specifications. The shoulder shall be constructed in two lifts. The first lift shall be placed and compacted flush with the top of the adjacent HMA shoulder or leveling binder. Placement of the HMA surface course will not be allowed until the first lift of aggregate shoulder is constructed.

# **STORM SEWER (WATER MAIN REQUIREMENTS)**

(Effective July 1, 1990; Revised January 1, 2009)

This work shall consist of constructing storm sewers meeting water main requirements.

Storm Sewer (Water Main Requirements) shall be used at locations where lateral separation between the sewer and water main or water service line is less than 10 feet (3.1 m) and the water main invert is less than 18 inches (457 mm) above the storm sewer crown. Also, Storm Sewer (Water Main Requirements) shall be used where the sewer crosses above the water main or water service line with 18 inches (457 mm) minimum vertical separation.

The storm sewer shall be constructed of

Ductile iron pipe, Class 52 with bell and rubber gasket joint or

Concrete pressure pipe conforming to the latest AWWA Standard C300, C301, C303 or

Plastic pipe meeting the material requirements of Section 40. Pipe for Water Mains and Service Connections of the Standard Specifications for Water and Sewer Main Construction in Illinois and Section 550 of the Standard Specifications.

This work shall be done according to the applicable portions of Sections 550 and 561 of the Standard Specifications.

Method of Measurement. This work will be measured for payment according to Article 550.09 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for STORM SEWER (WATER MAIN REQUIREMENTS), of the diameter specified.

## PERMANENT SURVEY MARKERS, TYPE I

Effective July 1, 1990

Revised January 1, 2007

Survey markers shall be installed according to Highway Standard 667101, except that the tablet shall be bronze instead of aluminum.

When a survey marker is used to reference a land survey point, the lettering referring to the State of Illinois and the Division of Highways shall be omitted and the marker shall be marked as directed by the Engineer.

#### UNPUBLISHED TELEPHONE NUMBERS FOR ENGINEER'S FIELD OFFICE

Effective March 21, 2002

Revised January 1, 2012

Add the following sentence to the end of Paragraphs 670.02(i)(2) and 670.04(f)(2):

All of the telephone lines provided shall have unpublished numbers.

## PIPE UNDERDRAINS 4" (MODIFIED)

(Effective January 1, 2010)

<u>Description.</u> This work consists of constructing pipe underdrains according to the applicable portions of Section 601 of the Standard Specifications and Highway Standard 601001.

<u>Materials.</u> The pipe underdrain material used shall meet the requirements of AASHTO M 252-96 except the pipe shall have a slot width of 0.07 in.  $\pm$  0.01 in. (1.75 mm  $\pm$  0.25 mm). The number of slots and the slot length may be modified to maintain the inlet flow specified in AASHTO M 252-96. Fabric around the pipe is not allowed.

The backfill material shall meet the requirements of Section 1003 of the Standard Specifications for a FA-4 Natural Sand or Gravel and meet the following gradation requirements:

Sieve Size	Percent Passing		
3/8" (9.5 mm)	100		
No. 10 (2 mm)	10±10		
No. 16 (1.18 mm)	5±5		
No. 200 (75 um)	1±1		

<u>Method of Measurement.</u> Backfill material will not be paid for separately, but shall be included in the unit cost of the underdrain.

<u>Basis of Payment.</u> This work will be paid at the contract unit price per foot (meter) for PIPE UNDERDRAINS 4" (MODIFIED) (PIPE UNDERDRAINS 100MM, MODIFIED).

## SHOULDER STABILIZATION AT GUARDRAIL

Effective February 7, 2013

Replace the last sentence of the second, third and fourth paragraphs of Article 630.06 with the following:

The void around each post shall be backfilled with earth or aggregate and capped with 3 inches (75 mm) of grout.

#### TRAFFIC CONTROL PLAN

Revised July 29, 2014

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these special provisions, and any special details and Highway Standards herein and in the plans.

Special attention is called to the following sections of the Standard Specifications, the Highway Standards, and the special provisions relating to traffic control:

## Standard Specifications:

Section 701 - Work Zone Traffic Control and Protection

Section 702 - Nighttime Work Zone Lighting

Section 703 - Work Zone Pavement Marking

Section 704 - Temporary Concrete Barrier

Section 780 – Pavement Striping

Section 781 - Raised Reflective Pavement Markers

Section 783 - Pavement Marking and Marker Removal

Section 862 - Uninterruptable Power Supply

Section 1106 – Work Zone Traffic Control Devices

## ERRATA Standard Specifications for Road and Bridge Construction

# Supplemental Specifications:

Section 701 – Work Zone Traffic Control and Protection

Section 780 – Pavement Striping

Section 1095 – Pavement Markings

Section 1106 – Work Zone Traffic Control Devices

## Highway Standards:

701001	701006	701011	701101	701106	701301
701306	701311	701316	701321	701326	701331
701456	701502	701601	701602	701606	701611
701701	701801	701901			

In addition, the following also relate to traffic control for this project:

# RECURRING SPECIAL PROVISIONS

Night Time Inspection of Roadway Lighting

Work Zone Public Information Signs

#### SPECIAL PROVISIONS

Changeable Message Sign

**Contractor Access** 

Maximum Drop-offs for Two-Lane, Two-Way Traffic

Preformed Plastic Pavement Marking Type D – Inlaid (BDE)

**Temporary Information Signing** 

**Temporary Pavement Marking** 

TRAFFIC CONTROL SURVEILLANCE: In addition to the Standard Specifications for Article 701.10 Surveillance, this item will be required when Traffic Standards 701456, 701502 are in place.

## PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL

Effective August 15, 2005

Revised January 1, 2009

All permanent and work zone pavement markings shall be removed according to Article 1101.12 Water Blaster with Vacuum Recovery and the applicable portions of Sections 703 and 783 of the Standard Specifications and as described herein. Pavement marking tape type III may be peeled or burned off, however, all remnants or burn marks shall be hydro-blasted.

Add the following paragraph to Article 1101.12 of the Standard Specifications.

For the high pressure water spray, the pressure at the nozzle shall be approximately 25,000 psi (172,000 kPa) with maximum flow rate of 15 gal/min (56 L/min). The nozzle shall be in close proximity to the pavement surface.

## MAXIMUM DROP-OFFS FOR TWO-LANE, TWO-WAY TRAFFIC

Effective December 14, 2009

Revised January 12, 2010

When the Contractor's operations cause a differential in elevation greater than 1.5 in. (38 mm) between adjacent lanes, the lane shall remain closed. The Contractor shall adjust his milling and paving operations so that all traffic lanes are open at the end of each work day.

To meet the above requirement, the Contractor shall:

Place the leveling binder lift immediately following the milling operation before opening the lane to traffic or

Place a temporary wedge after the milling operations (minimum 1V:3H slope) or

Mill a sloped wedge between lanes (minimum 1V:3H slope).

When the differential in elevation between adjacent open traffic lanes is greater than 1 in. (25 mm) and less than or equal to 1.5 in. (38 mm), "UNEVEN LANES" signs (W8-11(FO)) shall be erected at 1 mile (1.6 km) intervals.

This work will not be paid for separately, but shall be included in the cost of the applicable traffic control items.

## **TEMPORARY INFORMATION SIGNING**

Effective: September 24, 2013

<u>Description.</u> This work shall consist of the furnishing, installation, maintenance, and removal of temporary information signs.

<u>Materials.</u> Materials shall be according to the applicable portions of Section 701 of the Standard Specifications and as shown on the plans.

<u>Construction Requirements.</u> The temporary information signs shall be in place at least one week prior to the beginning of construction activities that impact traffic flow and shall remain in place until the completion of the project. If all lanes are open for an extended period of time during the project, such as a winter shutdown, the Contractor shall cover the signs until lane closures resume.

Signs shall be installed according to the requirements of Section 701.

<u>Method of Measurement:</u> This work will be measured for payment in square feet in place. The auxiliary sign panel will not be measured for payment.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square foot for TEMPORARY INFORMATION SIGNING.

## **LOOP DETECTOR TESTING**

Effective December 1, 1999

Revised January 1, 2007

The Contractor is advised of the presence of existing detector loops which shall be retained in the completed signal installation. The condition of each existing loop detector which will be retained shall be documented.

The required loop detector testing shall consist of measuring the following electrical characteristics of each loop within the intersection to determine if the loop meets the indicated criteria:

1. Loop Inductance. Stable frequency (frequency varies by less than +/-3 hertz) and minimum 50 microhenries when driven by amplifier.

For any loop that does not show a stable frequency, the Contractor shall determine if the unstable frequency is due to equipment malfunctions in the cabinet or outside the cabinet. The Contractor shall notify the Engineer of the source of the unstable frequency. Any problem due to existing equipment problems in the cabinet shall be repaired by city maintenance. Any problem caused by the required construction work shall be repaired and paid for separately on this contract.

Any loop that does not exceed 50 microhenries inductance shall be replaced.

2. Loop Resistance to Ground. Minimum 50 megohms.

For any loop circuit with less than 50 megohms resistance to ground or any loop that is being replaced, the Contractor shall break the loop to lead-in splice and measure the resistance to ground of the detector loop alone and each leg of the detector loop lead-in cable. If a single leg of the lead-in cable has a low resistance to ground, the Contractor shall replace the lead-in cable. If the detector loop, separated from the lead-in cable, passes the required tests, the loop shall not be replaced.

3. Loop Circuit Resistance. Maximum 3 ohms for lead-in less than 200 feet. Maximum 5 ohms for lead-in greater than 200 feet.

For any loop circuit with resistance greater than stated above, the splice shall be opened and the loop and each leg of the lead-in cable shall be tested. If the detector loop cable is the cause of the high resistance reading, the detector loop shall be replaced. If the lead-in cable is the cause of the high resistance reading, the lead-in cable shall be replaced.

The Contractor shall furnish a Decatur Electronics Loop Tester, Model DLT-150, or superior, to measure the loop resistance above ground, and quality factor of each loop. This unit shall remain the property of the Contractor.

The measurements shall be recorded for each loop circuit, including lead-in cable, following completion of the work, in the presence of the Engineer. The measurements shall be taken at the controller cabinet.

Any damaged detector loop or lead-in cable shall be replaced.

If an existing detector loop is damaged due to construction operations, the Contractor shall notify the Department at 815-434-8505 to modify the signal program until the detector loop can be replaced. The Contractor shall replace the loop as soon as possible.

Loop detector testing will be performed at each loop detector circuit following completion of work likely to damage the existing loops. The lead-in cable must be disconnected from the detector loop panel in the cabinet to prevent damage to the inductive loop detector. When the Contractor has made all necessary repairs, the Department's Traffic Signal Section shall be contacted to meet with the Contractor at the intersection to confirm the satisfactory readings.

Method of Measurement. This work will be measured for payment per intersection, regardless of the number of tests required. Any work required to replace any splices broken for testing of the lead-in cable and detector loop shall be included in the cost of this pay item.

Basis of Payment. This work will be paid for at the contract unit price per each intersection as LOOP DETECTOR TESTING.

## SERVICE INSTALLATION, OF THE TYPE SPECIFIED

Effective July 1, 1990

Revised January 1, 2007

In addition to the requirements of Section 805 of the Standard Specifications, this item shall require the Contractor to contact the utility company, prior to beginning work, to determine the utility company regulations relating to electrical service. The Contractor shall provide the utility company an estimated date that the service connection will be required, the agency which will be responsible for monthly service changes, and the connected load for flat rate billing if required. The responsible agency and connected load information is included in the plans. The customer service agreement with the utility company shall be executed by the agency responsible for monthly service charges.

All information furnished to the utility company shall be in writing with a copy provided to the Engineer.

During the interim between the service activation date and signal turn on day, all energy charges for the intersection shall be paid by the Contractor according to Article 109.05 of the Standard Specifications. Beginning the day of the traffic signal turn on, all energy charges for the intersection will be paid by the responsible agency listed in the plans. The Contractor is responsible for making arrangements with the responsible agency to transfer billing to the responsible agency.

This work shall be included in the cost of the SERVICE INSTALLATION, of the type specified.

## **UNDERGROUND CONDUIT**

Effective April 1, 2003

Revised January 1, 2012

Add the following requirements to Section 810 of the Standard Specifications:

Materials: Conduit placed under pavement, stabilized shoulder, paved median, paved driveway, curb, gutter, curb and gutter, or sidewalk shall meet the requirements of Article 810.02(a) or Article 810.02(b). In addition, rigid nonmetallic conduit shall be Schedule 80.

Construction Requirements: The tunnel created by the auger shall not be significantly larger than the conduit to prevent undue settling. No tunnel shall be left for more than two hours without conduit filling it.

#### INDUCTIVE LOOP DETECTOR

Effective January 1, 2002

Revised January 1, 2012

Inductive loop detectors shall meet the requirements of Sections 885 and 1079 of the Standard Specifications with the following modifications:

Each inductive loop detector amplifier shall be rack mounted. Each inductive loop detector amplifier channel shall have a minimum of :

- 8 sensitivity settings
- LCD program menu
- Detector logs and displays number of loop failure incidents since last reset
- Internal function to determine the ideal sensitivity setting for every loop system.
- 8 frequency settings
- 32 second call extend timer
- 32 second delay timer
- Call extend and delay timers able to operate cooperatively
- LED indication for detection

The detector supplied shall be the latest Reno model or equivalent.

The Contractor shall label each amplifier for the loop and movement where they provide input according to the chart in the plans.

Basis of Payment. This item will be paid for according to Article 885.04 of the Standard Specifications.

# FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL

Effective January 1, 2002

Revised January 1, 2007

Full Actuated Controller and Type IV Cabinet shall meet the requirements of Sections 857, 1073 and 1074 of the Standard Specifications with the following modifications.

This item requires that a factory representative capable of ensuring that the controller and cabinet are operating to the satisfaction of the Engineer shall be present at the turn on of the controller and shall remain until the intersection is operating to the satisfaction of the Engineer. Should a defect appear in the controller or cabinet operation, the representative shall return as often as necessary until all defects are repaired.

At the preconstruction meeting, the Contractor shall provide the names and phone numbers of two technicians who would be able to respond to controller malfunctions that occur within the 30 day acceptance period after the controller is turned on. If neither person can be reached at the time of the malfunction nor be at the location within 2 hours of receiving the call, any available electrician capable of evaluating and correcting the malfunction may be called at the State's discretion. Any and all bills resulting from defective operation of the controller or cabinet shall be the responsibility of the Contractor.

#### CONTROLLER:

The controller shall be capable of uploading and downloading its database to a laptop computer that has been installed with the proper software. All uploaded data shall be able to be changed within the laptop and then downloaded to the controller. The necessary cables for upload/download shall be provided and upload/download software shall be provided and installed onto the District Three laptop computer if the software and cables have not already been supplied to District Three or the software presently being used by District Three requires updating.

The controller data entry fields shall have a clear distinction between data fields and information. Data fields shall be in matrix format with a minimum of eight phases wide and four date lines deep.

The active status screen shall display the following information for all operating phases in an alpha-numeric display.

A clear distinction between the following detection's for each phase: vehicle recall, vehicle detection, pedestrian recall, and pedestrian detection.

A clear distinction among the phases receiving detection.

Status displayed simultaneously whenever one or more of the following is operating: vehicle passage timer, maximum phase timer, added initial timer, time before reduction timer, time to reduce timer, existing gap timer, walk timer, don't walk timer.

When a phase ends, the controller shall report whether the exit was a max out, gap out or force out condition. The controller shall show the yellow and red timers timing and any trailing overlap timers timing.

The color of all operating overlaps.

The phase of the controller shall be as shown in the plans.

#### **CONTROLLER CABINET:**

The police door compartment shall contain a manual control cord from which the signals may be operated manually. The inside door toggle switches shall be protected from accidental contact by vertical metal slats. The slats shall extend beyond the switches, in a manner similar to the terminals on the back panel. A plastic plans holder shall be installed on the cabinet door. The holder shall be at least 11 inches high and 17 inches wide, shall open from the side, and shall not interfere with the filter. The holder shall have a means of closing the side opening to prevent water from entering.

A Plexiglas cover, or other high strength nonconductive cover, shall be installed over, and completely cover, the power panel. The cover shall completely shield the service wires, and circuit breaker wires from accidental contact.

A Plexiglas cover, or other high strength nonconductive cover, shall be installed over, and completely cover, the power terminals for the thermostatically controlled exhaust fan. The thermostat shall be of the knob type capable of adjustment by hand and without tools. The thermostat and terminals shall be mounted on the left or right side of the controller cabinet.

All harness wiring of connectors A, B, C and D shall be factory installed so that an additional phase may be added to the existing phasing by the addition of a load switch and the proper conflict monitor card pinning.

A self-adhering phasing diagram shall be placed on the inside of the cabinet door.

Three 0.4 meter (15 inch) Velcro straps shall be fastened to the front of each cabinet shelf to secure the detector amplifier cables.

Traffic signal controller and the cabinet assembly shall be fully tested by the equipment supplier. Five (5) copies of the complete cabinet wiring showing all connections shall be furnished to the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per each for FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL.

## CONCRETE HANDHOLE OR CONCRETE DOUBLE HANDHOLE

Effective December 1, 1999

Revised January 1, 2007

Concrete Handhole and Concrete Double Handhole shall meet the requirements of Sections 814 and 1088 of the Standard Specifications with the following modifications:

The lift ring for the cover shall consist of a solid closed ring of stainless steel at least 0.375 inch (10 mm) in diameter. The lift ring shall be attached to the cover by a loop of stainless steel at least 0.375 inch (10 mm) in diameter. The lift ring and loop shall be recessed in the cover.

#### FIBER OPTIC CABLE IN CONDUIT

Revised January 1, 2007

Add the following paragraph to the end of Article 871.04 of the Standard Specifications:

"The trench carrying the fiber optic cable conduit between intersections shall be marked with a one-polymer warning stake placed equidistant between handholes. The warning stake shall be a solid orange color with a warning sign at the top of the stake. The stake shall have a sign at the top stating BURIED FIBER OPTIC CABLE ↔ CALL CITY OF PRINCETON AT (972) 736-2416 BEFORE DIGGING. The sign shall have a nominal dimension of 14 inches (350 mm) by 3 inches (75 mm). The stake shall have a nominal dimension of 3 inches (75 mm) wide by 0.25 inch (6 mm) thick by 5.5 feet (1.67 m) long. Fifty percent of the stake length shall be buried leaving approximately 30 inches (760 mm) exposed above ground displaying the sign. The stake shall be of such design as to deflect upon impact by a vehicle and flex back to original position. The stake shall have a factory-attached anchor. The anchor shall catch soil around the stake and prevent unauthorized removal."

This work will not be paid for separately, but shall be included in the cost of the fiber optic cable in conduit.

## **INLETS (SPECIAL)**

This item shall be constructed in accordance with Section 602 of the Standard Specifications and the details shown in the plans. Work shall include the cost of furnishing the grate, reinforcement bars, floor, walls, labor and other necessary items to construct the inlets.

Basis of Payment. This work will be paid for at the contract unit price per each for INLETS (SPECIAL).

# **CONCRETE MEDIAN (SPECIAL)**

This item shall consists of constructing a concrete median at the entrance shown on the plans according to the detail in the plans and according to the two standards cited – Standard 606301 and Standard 606306.

This item will be paid for at the contract unit price per square foot for CONCRETE MEDIAN (SPECIAL).

## **ISLAND PAVEMENT (SPECIAL)**

This work shall consist of constructing full depth concrete islands as shown on the plans (see Detail 606-1).

Method of Measurement. This work will be measured for payment in place and the area computed in square yards. The area shall include the combination curb and gutter flag areas.

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

## PIPE HANDRAIL, SPECIAL

This work shall consist of constructing pipe handrail in accordance with Section 602 of the Standard Specifications and the details shown in the plans.

Basis of Payment. This work will be paid for at the contract unit price per foot for PIPE HANDRAIL (SPECIAL).

## **CONCRETE ISLAND (SPECIAL)**

This work shall consist of constructing full depth concrete islands with sidewalk as shown on the plans (see Detail 424-28, Option 1). Work shall be in accordance with Section 606 of the Standard Specifications.

Method of Measurement. This work will be measured for payment in place and the area computed in square yards. The area shall include the combination curb and gutter flag areas and sidewalk areas.

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

# PAVED DITCH (SPECIAL)

This work shall consist of constructing a paved ditch to the dimensions shown on the plans in accordance with Section 606 of the Standard Specifications. This item shall include the cost of all concrete, welded wire fabric, labor, and other necessary items to construct the paved ditch. Paved ditch anchor wall or toe wall will not be required. Paved ditch shall abut the toe walls of the box culverts.

Method of Measurement. This work will be measured for payment in place along the centerline of the bottom of the paved ditch.

Basis of Payment. This work will be paid for at the contract unit price per foot for PAVED DITCH (SPECIAL).

#### ISLAND REMOVAL

Work includes removal of existing islands including all combination concrete curb and gutter and median surface or full depth island. Work shall be in accordance with Section 440 of the Standard Specifications.

This work will be paid for at the contract unit price per square foot for ISLAND REMOVAL.

## TEMPORARY PAVEMENT REMOVAL

Work includes removal of temporary hot-mix asphalt (HMA) and Portland cement concrete (PCC) pavement placed for construction staging. Work shall be in accordance with Section 440 of the Standard Specifications.

This work will be paid for at the contract unit price per square yard for TEMPORARY PAVEMENT REMOVAL regardless of pavement thickness or pavement material (HMA or PCC).

## HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) (FOR TEMPORARY PAVEMENT)

Work includes installation of full-depth hot-mix asphalt (HMA) pavement for use as temporary pavement for construction staging as shown in the plans. Work shall be in accordance with Section 406 of the Standard Specifications and includes installation of binder and surface courses.

This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) of the specified thickness.

#### **HOT-MIX ASPHALT DRIVEWAY PAVEMENT**

Work includes installation of full-depth hot-mix asphalt (HMA) pavement for use as a driveway pavement as shown in the plans. Work shall be in accordance with Section 406 of the Standard Specifications and includes installation of binder and surface courses. Use same mixture as HMA PAVEMENT (FULL DEPTH) for Temporary Pavement except that Mixture C friction aggregate may be used.

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

#### **SAW CUTS**

This work shall by in accordance with Section 442 of the Standard Specifications. No additional payment will be made for saw cutting of pavement. This work shall be included in the cost of the pavement item being removed.

#### SANITARY SEWERS AND MANHOLES

This work shall consist of constructing new sanitary sewer and manholes including trenching, backfill, sanitary sewer removal and replacement, and sanitary manholes as shown in the plans. Sanitary sewer materials, installation, manholes, and testing required to install sanitary sewer and manholes shall conform to the current edition of the Standard Specifications for Water and Sewer Construction in Illinois (Water and Sewer Specifications).

The new sanitary sewer will be replaced in the same location as the existing sanitary sewer. The sewer shall remain in service at all times. Work and materials that are required for pumping and routing of sewer flows around the work area shall be included in the cost of the sanitary sewer.

Removal. The existing sanitary sewer shall be removed and disposed of according to Article 202.03 of the Standard Specifications.

Excavation and Foundation. Conform to Article 550.04 of the Standard Specifications.

Backfill. Conform to Article 550.07 of the Standard Specifications and the detail shown in the plans. Backfill shall be compacted using Method 1.

Bedding, haunching and initial backfill shall be included in the cost of the sanitary sewer pipe.

Final backfill shall be trench backfill in accordance with Section 208 of the Standard Specifications.

Sanitary Sewers. Conform to Section 31 of the Water and Sewer Specifications. Sanitary sewer pipe shall be in accordance with Section 30-4.04 of the Water and Sewer Specifications except that the minimum Standard Dimension Ration (SDR) shall be SDR 26 polyvinyl chloride (PVC).

Sanitary Sewer Manholes. Conform to Section 32 of the Water and Sewer Specifications. Sanitary manholes shall be 4-foot diameter precast watertight manholes without manhole steps in accordance with Section 32-4 of the Water and Sewer Specifications. Frames and lids shall be Neenah R-1712.

Testing. Sanitary sewer shall be air tested and tested for deflection in accordance with Sections 31-1.12 and 31-1.13 of the Water and Sewer Specifications. Sanitary sewer manholes shall be vacuum tested in accordance with Section 32-12 of the Water and Sewer Specifications. Testing shall be included in the cost of the items to be tested.

Method of Measurement. Sanitary sewer will be measured for payment in place to the inside walls of manholes and to the ends of casing pipes. Sanitary sewer removal will be measured for payment in place.

Trench backfill and excavation in rock will be measured for payment according to Article 550.09 of the Standard Specification.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER of the pipe material and diameter specified and SANITARY SEWER REMOVAL of the diameter specified. Manholes will be paid for at the contract unit price per each for MANHOLE, SANITARY.

Trench backfill, excavation in rock, and removal and replacement of unsuitable material below plan bedding grade will be paid for according to Article 550.10 of the Standard Specifications.

## STEEL CASING PIPE

Steel casing pipe shall conform to ASTM A139 Grade A The casing shall be continuous either by one piece fabrication or by field welded joints done in accordance with AWWA C206. The steel casing material shall have a minimum yield strength of 35,000 psi and the following minimum wall thickness:

Casing Diameter	Wall Thickness
Under 14 in.	0.188 in.
14 and 16 in.	0.250 in.
18 in.	0.250 in.
20 in.	0.250 in.
24 in.	i 0.312 in.
30 in.	0.312 in.
36 in.	0.375 in.
42 in.	0.375 in.
48 in.	0.375 in.
54 in.	0.500 in.
60 in.	l 0.575 in.
66in	0.650 in
72 in.	0.650 in

#### STEEL CASING PIPE IN TRENCH

This work shall consist of constructing steel casing pipe using trench construction. Work shall conform to Section 550 of the Standard Specifications for the installation of rigid pipes.

Method of Measurement. Casing pipe will be measured for payment in place in feet.

Trench backfill and excavation in rock will be measured for payment according to Article 550.09 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per foot for STEEL CASING PIPE IN TRENCH of the diameter specified.

Trench backfill, excavation in rock, and removal and replacement of unsuitable material below plan bedding grade will be paid for according to Article 550.10 of Standard Specifications.

#### SANITARY SEWER IN CASING PIPE

This work shall consist of installing sanitary sewer carrier pipe in steel casing pipe.

The carrier pipe shall be supported for its entire length inside the casing pipe by means of casing chocks/spacers, sized precisely for the individual installation. Stainless steel/polyethylene casing chocks/spacers shall keep the carrier pipe centered in the casing and to prevent damage when the installation is made. Approved chocks/spacers shall be installed at a maximum of 6-foot intervals within the casing pipe such that no part of the carrier pipe rests on the casing pipe. If the carrier pipe sections measure less than 6 feet in length, provide a minimum of two (2) spacers per pipe section.

The spacers shall come from an approved source

The ends of the casing pipe shall be sealed with either: brick and mortar, concrete, or synthetic rubber and seals specifically made for this purpose.

During the course of the work, provision shall be made for accurate checking of line and grade so that no deviation of planned alignment or grade will occur.

Carrier pipe will be subject to the testing requirements specified for the adjacent trenched pipe.

Method of Measurement. Carrier pipe will be measured for payment in place in feet.

Basis of Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER IN CASING PIPE of the diameter specified.

## FIRE HYDRANTS TO BE RELOCATED

This work shall consist of removing and relocating fire hydrants, hydrant leads, and valves shown in the plans. All work shall conform to the City of Princeton Water Distribution Specifications and the current edition of the Standard Specifications for Water and Sewer Construction in Illinois (Water and Sewer Specifications) and includes all water main materials, fittings and valves, installation, and disinfection required to install relocated fire hydrants.

Materials. Water main materials, fittings, valves and other materials required shall comply with the City of Princeton Water Distribution Specifications. Materials shall be approved by the City prior to installation.

Hydrant Lead. A new hydrant lead, valve, thrust blocks, and associated fittings and appurtenances shall be installed at the new location as shown in the plans. A minimum cover of four feet (4') shall be provided. The existing main shall remain in service at all times.

Water Main and Fittings. Conform to Section 40 of the Water and Sewer Specifications. Valves. Conform to Section 42 of the Water and Sewer Specifications.

Relocated Fire Hydrant. The existing fire hydrant shall be removed and relocated to the new hydrant lead. Work shall conform to Section 45 of the Water and Sewer Specifications.

Thrust Blocking. Provide thrust blocks at all bends, tees, caps, valves and hydrants. Conform to Article 41-2.10 of the Water and Sewer Specifications and the detail in the plans.

Removal. The existing hydrant lead and valve shall be removed and the existing lead capped at the main. The existing hydrant valve will be the property of the City of Princeton. Excavation and Foundation. Conform to Article 550.04 of the Standard Specifications.

Backfill. Conform to Article 550.07 of the Standard Specifications and the detail shown in the plans. Backfill shall be compacted using Method 1.

Bedding, haunching, and initial and final backfill shall be included in the cost of the hydrant relocation.

Disinfection. Disinfect new installation by spraying a solution of 300 mg/L chlorine. Flush the cholrine solution immediately after installation. Conform to Paragraph 45-3.24 of the Water and Sewer Specifications.

Method of Measurement. Trench backfill and excavation in rock will be measured for payment according to Article 550.09 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per each for FIRE HYDRANTS TO BE RELOCATED which will include all materials and work to relocate hydrants and remove existing hydrant leads.

Trench backfill, excavation in rock, and removal and replacement of unsuitable material below plan bedding grade will be paid for according to Article 550.10 of the Standard Specifications.

## INSTALL WATER SERVICE COMPLETE

This work shall consist of installing a new water service line, service valve and box. All work shall conform to the current edition of the Standard Specifications for Water and Sewer Construction in Illinois (Water and Sewer Specifications) and includes all materials, fittings, corporation valve, installation including directional boring, backfill, connections, abandoning existing service and all miscellaneous work to install complete water service across IL 26. Water service installation shall conform to Section 41 of the Water and Sewer Specifications.

Materials. All materials shall comply with the City of Princeton Water Distribution Specifications. Materials shall be approved by the City prior to installation.

Service line. 1" copper. A minimum cover of four feet (4') shall be provided. Conform to Section 40 of the Water and Sewer Specifications.

Excavation. Conform to Article 550.04 of the Standard Specifications.

Directional Boring. Conform to Section 23 of the Water and Sewer Specifications.

Curb Stop and Compression Fittings. Conform to Section 40 of the Water and Sewer Specifications.

Service Valves and Box. Service valve and box will be supplied by the City of Princeton. Installation shall conform to Section 41 and 44 of the Water and Sewer Specifications.

Removal. The existing service shall be abandoned in place. The existing service valve and box will be the property of the City of Princeton.

Initial and Final Backfill. Conform to Article 550.07 of the Standard Specifications and the detail shown in the plans. Backfill shall be compacted using Method 1. Initial and final backfill shall be included in the cost of the water service relocation.

Basis of Payment. This work will be paid for at the contract unit price per each for INSTALL WATER SERVICE COMPLETE.

## REQUIREMENTS WHEN WORKING NEAR EXISTING PIPELINES

<u>Description:</u> This project involves work above and in close proximity to several existing underground pipelines. The following conditions shall apply to this contract:

- Illinois one-call (JULIE) and pipeline representatives must be contacted a minimum of 72 hours in advance of any construction activities within 100 feet of their respective facility so that pipeline companies may be present to ensure that there are no conflicts with their pipeline.
- 2. The contractor is responsible for taking all necessary safety precautions and will be held responsible for any damages caused to the pipeline or property as a result of their work. Exposing the existing pipelines may be required prior to working near pipelines to determine the exact alignment and depth.
- 3. There shall be no excavation or backfilling within 25 feet of pipelines for any reason without permission from an on-site representative of the pipeline company.
- 4. All ditch excavation within 10 feet of the pipeline will be performed by hand until the pipeline has been located. Then, if approved by the company on-site representative, mechanical excavation equipment may be used within 5 feet of the pipeline. All excavation or construction activities within 5 feet of the pipeline shall be performed by hand, or as directed by the on-site pipeline company representative.
- 5. Heavy equipment will not be allowed to operate directly over pipeline except at the discretion of pipeline representative. When required, the contractor shall place approved crane mats over the pipeline during construction for temporary crossing protection. A complete listing of anticipated construction vehicular traffic with anticipated maximum loads shall be provided to the pipeline representative at the pre-construction meeting.

- 6. Heavy equipment shall only be allowed to cross pipelines at ditch locations designated by the pipeline company. Crossing of pipelines shall be made as close as possible to 90 degrees. The contractor shall not be permitted to transport construction materials or equipment longitudinally over the pipelines. No track type construction equipment shall be permitted to pivot or turn directly over the top of the pipeline. When inclement weather exists, provisions must be made to compensate for soil displacement due to subsidence of tires.
- 7. Vibratory rollers for compacting shall be turned off at pipeline crossings.
- 8. Unimpeded access to pipelines will be required at all times. Natural drainage will not be impaired. All rock, debris, tree trimmings and unused excavated material will be promptly removed from the site and the site will be left in clean and orderly condition to the satisfaction of the pipeline company on-site representative. Erosion due to excavating or grading activities shall be immediately restored to provide protection to the pipeline facility.
- 9. No blasting shall occur on or within 100 feet of pipeline facilities unless approved in writing by the pipeline company. If blasting of bedrock is to occur near the pipeline, the pipeline company may require a review of the soil and site conditions. Seismometers may be required to be installed for purposes of measuring peak particle velocities during blasting. Allowance would need to be made in the schedule for time to review the results and make any necessary adjustments.
- 10. For Pipeline Company contacts, see the Special Provision for "Status of Utilities to be Adjusted".

## **HOT-MIX ASPHALT MIXTURE IL-9.5FG (BMPR)**

Effective: July 1, 2005 Revised: December 28, 2010

<u>Description</u>. This work shall consist of constructing fine graded hot-mix asphalt (HMA) surface course-or leveling binder with an IL-9.5FG mixture. Work shall be according to Sections 406, 407 and 1030 of the Standard Specifications, except as modified herein.

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

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, or FA 21. For mixture IL-9.5FG, the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof."

Mixture Design. Add the following to the table in Article 1030.04(a)(1):

"High ESAL, MIXTURE COMPOSITION (% PASSING) 1/					
Sieve	IL-9.5FG				
Size	min	max			
1 1/2 in (37.5 mm)					
1 in. (25 mm)	1 in. (25 mm)				
3/4 in. (19 mm)					
1/2 in. (12.5 mm)		100			
3/8 in. (9.5 mm)	90	100			
#4 (4.75 mm)	60 <sup>4/</sup>	75 <sup>4/</sup>			
#8 (2.36 mm)	45 <sup>4/</sup>	60 <sup>4/</sup>			
#16 (1.18 mm)	25	40			
#30 (600 μm)	15	30			
#50 (300 μm)	8	15			
#100 (150 μm)	6	10			
#200 (75 μm)	4	6.5			
Ratio Dust/Asphalt Binder		1.0			

4/ When used as level binder placed less than 1 in. (25 mm) thick, the min and max percent passing shall each be increased 5%.

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

"VOLUMETRIC REQUIREMENTS High ESAL					
Voids in the Mineral Aggregate (VMA), % minimum				Voids Filled with Asphalt Binder (VFA),	
N <sub>design</sub>	IL-25.0	IL-19.0	IL-12.5	IL-9.5	%
50					65 - 78
70	12.0   13.0   14.0   15 1/				
90	12.0	13.0	14.0	15	65 - 75 <sup>2/</sup>
105					

- 1/ The VMA for IL-9.5FG shall be a minimum of 15.0 percent.
- 2/ The VFA range for IL-9.5FG shall be 65 78 percent."

Quality Control/Quality Assurance (QC/QA). Revise the second table in Article 1030.05(d)(4) to read:

DENSITY CONTROL LIMITS			
Mixture Composition		Parameter	Individual Test <sup>3/</sup>
	Lifts < 1.25 in. (32 mm)	N <sub>design</sub> 50 - 105	91.0 – 97.0% 2/
IL-9.5FG	Lifts ≥ 1.25 in. (32 mm)	N <sub>design</sub> 50 - 105	93.0 – 97.0%
IL-9.5, IL-1	2.5	N <sub>design</sub> ≥ 90	92.0 – 96.0 %
IL-9.5, IL-9.5L, IL-12.5		N <sub>design</sub> < 90	92.5 – 97.4 %
IL-19.0, IL-25.0		N <sub>design</sub> ≥ 90	93.0 – 96.0 %
IL-19.0, IL-19.0L, IL-25.0		N <sub>design</sub> < 90	93.0 – 97.4 %
All Other		N <sub>design</sub> = 30	93.0 <sup>1/</sup> - 97.4 %

- 1/ 92.0 % when placed as first lift on an unimproved subgrade.
- 2/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
- 3/ Bulk Specific Gravity and Density that are determined using coated samples must be in accordance with ASTM 1188-96.

#### CONSTRUCTION REQUIREMENTS

<u>Leveling Binder</u>. Revise the table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-9.5, IL-9.5 FG, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5, IL-9.5FG, IL-9.5L, or IL-12.5

The density requirements of Article 1030.05(d)(4) shall apply for leveling binder, machine method, when the nominal, compacted thickness is: 3/4 in. (19 mm) or greater for IL-9.5FG mixtures, 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures, and 1 1/2 in. (38 mm) or greater for IL-12.5 mixtures."

Compaction. Revise Table 1 in Article 406.07(a) of the Standard Specifications to read:

"TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA				
	Breakdown Roller (one of the following)	Intermediate Roller	Final Roller (one or more of the following)	Density Requirement
Level Binder: (When the density requirements of Article 406.05(c) do not apply.)	P 3/		VS, P 3/, TB, TF, 3W	To the satisfaction of the Engineer.
Level Binder: (When placed at ≤ 1 ¼ (32 mm) and density requirements apply.)	TB, 3W	P 3/	VS, TB, TF	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
Binder and Surface 1/ (When the density requirements of Article 406.05(c) apply.)	VD, P 3/, TB, 3W	P 3/	VS, TB, TF	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
Bridge Decks 2/	ТВ		TF	As specified in Articles: 582.05 and 582.06.

- 1/ If the average delivery at the job site is 85 ton/hr (75 metric ton/hr) or less, any roller combination may be used provided it includes a steel wheeled roller and the required density and smoothness is obtained.
- 2/ One TB may be used for both breakdown and final rolling on bridge decks 300 ft (90 m) or less in length, except when the air temperature is less than 60 °F (15 °C).
- 3/ A vibratory roller (VD) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.

<u>Basis of Payment</u>. Add the following two paragraphs after the third paragraph of Article 406.14 of the Standard Specifications:

"Mixture IL-9.5FG will be paid for at the contract unit price per ton (metric ton) for LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, of the Ndesign specified.

Mixture IL-9.5FG in which polymer modified asphalt binders are required will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, of the Ndesign specified."

# TEMPORARY CONSTRUCTION/WATERWAY PERMITS (CORPS OF ENGINEERS) Effective January 1, 2001

Effective January 1, 2001

Revised January 1, 2002

Temporary in-stream work for proposed construction activities has been authorized from the Army Corps of Engineers using the following guidelines:

All requests made by the Contractor shall refer to Permit No. <u>CEMVR-OD-P-2014-1085</u> for Structure Number: **006-2506(exist.)/(prop.)**.

Temporary causeway / workpads:

- Area: + 108 sq. yd.
- Location: Upstream side and Downstream side of structure, which may be adjusted depending on actual project needs.
- Material Type: Clean coarse aggregates.
- Additional Restrictions: Maintain normal low flows during construction by placing drainage culverts under the causeway or by other applicable and appropriate dewatering methods.
   Stream channel should be cleaned, reshaped and protected with riprap within the ROW limits upon completion of the project.

Should the Contractor desire to deviate from the guidelines currently imposed under the permit as listed above, then full design details including location, material specifications, and hydraulic analysis should be included in a request to the Army Corps of Engineers. Requests shall be made to United States Army Corps of Engineers, Rock Island District. Clock Tower Building-P.O. Box 2004, Rock Island, IL 61204.

Any additional request is at the discretion of the Contractor, therefore, any delays in receiving approval for various methods outside of the given parameters will **not** be cause for additional compensation.

## TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

This work shall include furnishing, installing, maintaining, replacing, relocating, and removing all traffic control devices used for the purpose of regulating, warning, or directing traffic on Illinois 26, the I-80 ramps and Progress Boulevard for Stages 1 through Stage 6, including any sub stages. Traffic control and protection shall be provided as called for in the plans as shown on the Staging and Traffic Control Plan sheets for stages 1 though stage 6, (including sub stages). This work shall also include setting up traffic control standards mentioned on these sheets (such as Standards 701456, 701006,701326, and 701701 as mentioned in Stage 1).

Temporary traffic signals and temporary pavement marking tape shall be paid for separately.

This item shall be paid for at the contract unit price per Lump Sum as TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

## STRINGLESS CONSTRUCTION OPTION

Effective March 15, 2012

If the Contractor desires to perform construction using stringless operations, (s)he shall request authorization from the Engineer according to the last paragraph of Article 108.06 of the Standard Specifications. The Contractor shall submit the written request one week prior to beginning stringless operations.

<u>Construction Requirements</u>. Use of a stringless machine shall not relieve the Contractor of any responsibilities stated in the Recurring Special Provision Construction Layout Stakes Except for Bridges or Construction Layout Stakes.

Any Department or Contractor layout destroyed by the Contractor's operations shall be reestablished by the Contractor as directed by the Engineer.

The Contractor shall mark the projected path of the stringless paver with paint two days prior to the beginning of the paving operations.

When a system failure occurs during paving operations the following shall apply:

HMA – For HMA pavement, the Contractor will be allowed to lay material as described for a sudden rain event in Article 406.06(c) of the Standard Specifications after which operations shall stop until the system is proven to be in working order.

PCC – For PCC pavement, the Contractor shall immediately stop operations until the system is proven to be in working order.

#### MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

This pay item shall conform to the requirements of Section 850 of the Standard Specifications with additions as described herein.

The Contractor becomes responsible for maintenance of the signalized intersection as soon as the contractor begins construction. The Contractor is advised to request a preliminary inspection at least a week prior to work beginning in the area of the traffic signal to have the local maintenance repair any existing deficiencies. If no inspection is performed prior to the Contractor beginning construction, any defects in the existing installation are the responsibility of the Contractor to repair in the time frames described.

The Contractor is responsible to pursue all insurance claims during the maintenance period.

The Contractor shall contact the municipality to alter the timing of the traffic signal when a detector loop has been damaged. The Contractor shall contact the municipality as soon as he knows a loop has been damaged so the operation of the signal is not impaired. The Contractor shall not be charged for the alteration of traffic signal timings.

<u>Basis of Payment.</u> This item shall be paid for at the contract unit price per each intersection for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION, which price shall be payment in full for all labor, controller equipment, and material necessary to perform the work as described above.

#### **MASTER CONTROLLER IN TYPE V CABINET**

This work shall consist of installing a new master controller in a Type V Cabinet at the existing Signalized intersection at IL 26 and I-80 westbound ramps as shown on the plans. The new traffic signal equipment for this project shall be latest Siemens Master Controller in Type V Cabinet shall meet the requirements of Sections 857, 860, 1073 and 1074 of the Standard Specifications as well as the additional requirements set forth in the special provision "Full-Actuated Controller And Type V Cabinet, Special"

A new environmentally hardened laptop notebook computer shall be provided and delivered to the Traffic Signal Section at the Illinois Department of Transportation District Three Headquarters.

The minimum computer specifications shall be as follows:

- Intel Core Duo or Approved Equal (Minimum 2.33 GHz)
- 17 Inch Ultra-Bright UXGA Display
- Tripp Lite Isotel 6 Ultra Surge Protector
- Microsoft Window XP Professional
- Documentation
- The required cables compatible with proposed controllers and master software shall be installed and tested before acceptance of the computer.
- Environmentally Hardened Construction
- Water-Resistant/Waterproof Case
- Battery Charger
- Most Current Synchro Software
- CD/DVD Burner
- Built-In 9-Pin Serial Port
- Extended Warranty

The Contractor shall supply three (3) copies of the latest applicable traffic signal master controller timing software (Marc Tatics), Latest version Windows-based software, as well as three (3) manuals. Three day of training by a factory representative on the software shall be provided for up to ten (10) people. A five (5) year software (Marc Tatics) maintenance and upgrade agreement shall also be included.

Revise Articles 860.02-Materials and 860.03-Installation of the Standard Specifications to read:

Only controllers supplied by one of the district approved closed loop equipment manufacturers will be allowed. Only NEMA TS 2 Type 1 Econolite closed loop systems shall be supplied. The latest model and software version of master controller shall be supplied.

Functional requirements in addition to those in Section 863 of the Standard Specifications include:

The system commands shall consist of as a minimum six (6) cycle lengths, five (5) offsets, three (3) splits and four (4) special functions. The system commands shall also include commands for free or coordination operation.

Traffic responsive operation shall consist of the real time acquisition of system detector data, data validation and the scaling of acquired volumes and occupancies in a deterministic fashion so as to cause the selection and implementation of the most suitable traffic plan.

Upon request by the Engineer, each master shall be delivered with up to three (3) complete sets of the latest edition of registered remote monitoring software with full manufacture's support. Each set shall consist of software on CD, DVD or other suitable media approved by the Engineer and a bound set of manuals containing loading and operating instructions. One copy of the software and support data shall be delivered to the agency in charge of the system operation, if other than IDOT. One of these two sets will be provide to the agency Signal Maintenance Contractor for use in monitoring the system.

The approved manufacturer of equipment shall loan the District 3 master controllers and two intersection controllers of the most recent models and the newest software version to be used for instructional purposes in addition to the equipment to be supplied for the contract.

The contractor shall arrange to install a standard voice-grade dial-up telephone line to the master controller. This shall be accomplished through the following process utilizing District 3 Traffic Signal Engineer at (815) 434-8505 and the City of Princeton at (972) 736-2416 This telephone line may be coupled with a DSL line and a phone filter to isolate the dial-up line. An E911 address is required.

The cabinet shall be provided with an outdoor network interface for termination of the telephone service. It shall be mounted to the inside of the cabinet in a location suitable to provide access for termination of the telephone service at a later date.

Full duplex communication between the master and its local controllers is recommended but at this time is not required.

The data rate shall be 1200 baud minimum and shall be capable of speeds to 38,400 or above as technology allows. The controller when installed in an Ethernet topology may operate non-serial communications.

The cabinet shall be equipped with a 9600 baud auto dial/auto answer modem. It shall be a US robotics 33.5 K baud rate or equal.

As soon as practical or within one week after the contract has been awarded, the Contractor shall contact (via phone) the City of Princeton to request a phone line installation.

A follow-up fax transmittal to the City of Princeton with all required information pertaining to the phone installation is required from the contractor as soon as possible or within one week after the initial request has been made. A copy of this fax transmittal must also be faxed by the contractor to the Traffic Systems Engineer at (815) 434-8505. The required information to be supplied on the fax shall include (but not limited to): a street address for the new traffic signal controller (or nearby address); a nearby existing telephone number; what type of telephone service is needed; the name and number of the contractors employee for the telephone company to contact regarding site work and questions.

The usual time frame for the activation of the phone line is 4-6 weeks after the business services section has received the contractor supplied fax. It is therefore imperative that the phone line conduit and pull-string be installed by the Contractor in anticipation of this time frame. On jobs which include roadway widening in which the conduit cannot be installed until this widening is completed, the Contractor will be allowed to delay the phone line installation request to the business services section until a point that is 4-6 weeks prior to the anticipated completion of the traffic signal work. The contractor shall provide the City of Princeton with an expected installation date considering the 4-6 weeks processing time.

The telephone line shall be installed and activated one month before the system final inspection.

All costs associated with the telephone line installation and activation (not including the contract specified conduit installation between the point of telephone service and the traffic signal controller cabinet) shall be paid for by the District 3 business services (i.e., this will be an IDOT phone number not a contractor phone number).

<u>Training.</u> Within sixty (60) days but not before (30) days after the signal system is fully operational and accepted by the Engineer, the Contractor shall provide training for up to (15) people city and county personnel for a minimum of four days. The training shall consist of detailed instructions on the operation and programming of the intersection controllers, master controller, video detection system and fiber optic cable. The instructors shall be qualified personnel and approved by the respective manufacturers. One set of manuals shall be furnished to each class participant. This is in addition to the documentation normally provided on this contract. It will be the responsibility of the contractor to provide the training site. Three follow-up days swill also be required within two years for the video camera adjustments.

The computer shall be delivered to the Department prior to any traffic signal activation or inspection.

<u>Basis of Payment.</u> This item shall be paid for at the contract unit price each for MASTER CONTROLLER IN TYPE V CABINET, SPECIAL, which price shall be payment in full for all labor and material necessary to perform the work as described above.

## TEMPORARY TRAFFIC SIGNAL INSTALLATION

<u>Description</u>. This work shall consist of furnishing, installing, maintaining and removing a temporary traffic signal installation at the intersections shown on the plans.

Installation Requirements. This work shall be completed in accordance with Section 890 of the Standard Specifications. The Contractor shall notify the Engineer at least 48 hours in advance when the temporary signal installation is ready to be turned on. Representatives of IDOT will then inspect the installation. After approval by IDOT, the maintenance of the temporary signal installation, including all energy charges, shall become the responsibility of the Contractor until removal is directed by the Engineer. After removal of the temporary installation, the equipment and materials furnished by the Contractor shall remain the property of the Contractor.

Any relocation of the traffic signal heads along the overhead span wire due to a change in Maintenance of Traffic stages or for any other reason shall not be paid for separately but shall be considered included in this pay item.

Temporary Video Detection. This work shall consist of furnishing and installing a video detection system at each temporary traffic signal installation. This work shall be completed in accordance with all applicable portions of the Standard Specifications. The approved video detection system for this project is the latest version of "Autoscope", and shall consist of the "Autoscope 2020" Machine Video Processor and an appropriate number of "Autoscope AIS" Image Sensors. The Machine Video Processor shall be shelf or rack mounted in the temporary traffic signal cabinet. The video detection system shall be installed in accordance with the technical specifications available through the manufacturer. The video detection system shall also include all the necessary coaxial video cable and power cable to connect the image sensors to the Machine Video Processor as well as any additional appurtenances necessary to implement the temporary video detection system. The Contractor shall be responsible for making the necessary adjustments to the temporary video detection system so that the system continues to work throughout all of the separate maintenance of traffic stages and links up with the Temporary Traffic Signal Interconnect System Master Cabinet. Temporary video detection shall not be paid for separately, but shall be considered included in this pay item.

<u>Maintenance Procedures</u>. The Contractor shall be responsible for maintaining the traffic signal installation in proper operating condition. The Contractor shall perform the following maintenance procedures:

- (a) Patrol and inspect the signal installation at least once every two weeks for proper alignment of signal heads, lamp outages, and general operation of the traffic signals.
- (b) Provide immediate corrective action to replace burned-out lamps or damaged sockets with new approved lamps or sockets. At the time of replacement, the reflector and lens shall be cleaned.

(c) Respond to emergency calls within two hours after notification and provide immediate corrective action. The Contractor shall maintain in stock a sufficient amount of material and equipment to provide temporary and permanent repairs. Any damage to the signal installation from any cause whatsoever shall be repaired or replaced by the Contractor at his own expense. The Contractor may institute action to recover damages from a responsible third party.

The Contractor shall install STOP (R1-1-3636) signs on all approaches to the intersection as a temporary means of regulating traffic during the time of repair when required by the Engineer.

(d) The Contractor shall provide the Engineer the names and telephone number of two persons who will be available 24 hours a day, 7 days a week, to perform any necessary work on the signal installation.

If, at any time, the Contractor fails to perform any work deemed necessary by the Engineer to keep the traffic signals in proper operating condition, or if the Engineer finds it impossible to contact the designated persons to perform any work, the Department reserves the right to have other electrical contractors perform the needed work. The cost of such work will be deducted from the amount due the Contractor.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per each for TEMPORARY TRAFFIC SIGNAL INSTALLATION, which price shall be payment in full for all materials, equipment, and labor necessary for the installation and removal of the temporary traffic signals, including the investigation for proper placement, excavation and backfill.

## MODIFY EXISTING CONTROLLER CABINET

In addition to the requirements of Sections 862 and 895 of the Standard Specifications, this pay item will include modifying the existing controller cabinet for proposed fiber interconnect, and all other work inside the cabinet necessary for correct operation of the traffic signal equipment.

<u>Basis of Payment</u>: This item shall be paid for at the contract unit price each for MODIFY EXISTING CONTROLLER CABINET, which price shall include payment in full for all labor and material necessary to perform the work as described above.

## REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

This work shall consist of removing the existing traffic signal equipment at the intersections as listed and as shown on the plans.

Unless specified otherwise in the plans, the equipment removed shall become the property of the city in which it was removed and if not within city limits, the State of Illinois. The removed equipment shall be delivered to the storage yard(s) to be designated by the city in which it was removed and if not within a city limits, delivered to the nearest State of Illinois maintenance yard.

The Contractor shall provide three (3) copies of a list of equipment that is to become the property of the city and/or state, including model and serial numbers where applicable. The Contractor shall be responsible for the condition of the traffic signal equipment from the time of removal until the acceptance of a receipt drawn by the state or city, indicating that the items have been received in good condition.

<u>Basis of Payment</u>: This work shall be paid for at the contract unit price each for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT per intersection, which price shall be payment in full for removing the equipment, storing and/or disposing of it as required, and delivering equipment to the state or city as shown on the plans.

#### **OPTIMIZE TRAFFIC SIGNAL SYSTEM**

This work shall consist of providing a Signal Coordination and Timing (SCAT) Report and implementing optimized timings to the pre-timed temporary traffic signal installations and the new closed loop interconnect system running along IL 26 westbound ramp to IL 26 and Backbone Road, including temporary signalized installations at:

- IL 26 and I-80 (West Ramp)
- IL 26 and I-80 (East Ramp)
- IL 26 and Ace Road (Walmart Entrance)
- IL 26 and Backbone Road

MAINTENANCE OF THE SUBJECT INTERSECTIONS SHALL NOT BE ACCEPTED BY THE DEPARTMENT UNTIL THE OPTIMIZED TIMINGS ARE IMPLEMENTED ANDTHE SIGNALS ARE FUNCTIONING TO THE SATISFACTION OF THE ENGINEER.

After the new signalized intersections are added or the existing signal is modified, the traffic signal system shall be optimized by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District 3 of the Illinois Department of Transportation. The Contractor shall contact the Area Traffic Signal Operations Engineer at (815) 434-8505 to coordinate this process.

A listing of existing signal equipment, interconnect information and existing phasing/timing patterns may be obtained from the Department if available and as appropriate. The existing SCAT Report is available for review at the District 3 office (if one exists) and if the Consultant provides blank rewritable compact disks, copies containing software runs for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall consult with the Area Traffic Signal Operations Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system; in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

A Capacity Analysis shall be conducted at the subject intersections to determine their level of service and degree of saturation. Appropriate signal timings shall be developed for the subject intersections and existing timings shall be utilized for the rest of the intersections in the system with minor adjustments if necessary. Changes to the cycle lengths and offsets for the entire system may be required due to the addition/modification of the subject intersection. Both volume and occupancy shall be considered when developing the re-optimized timing program. Signal system optimization analyses shall be conducted utilizing PASSER II, TRANSYT 7F, SIGNAL 85, SYNCHRO 6.0 or other appropriate approved computer software.

If the system is being optimized due to the addition of a signalized intersection, all the intersections shall be re addressed according to the current standard of District 3. The proposed signal timing plan shall be forwarded to IDOT for review and approval seven days prior to the traffic signal turn on at the intersection. The timing plan shall be implemented at least two working days prior to the turn on of the traffic signal. The timing plan shall include a traffic responsive program and a time-of-day program, which may be used as a back-up system. After downloading the system timings, the Consultant shall make fine turning adjustments to the timing in the field to alleviate observed operating conditions and to enhance operations. The timing plans shall be re-evaluated after the signal has been turned on and traffic has had an opportunity to adjust to the new signal. Any necessary timing changes shall be made at that time with the approval of the Area Signal Engineer.

- (a) The following tasks are associated with OPTIMIZE TRAFFIC SIGNAL SYSTEM.
- 1. Appropriate signal timings and offsets shall be developed for each intersection and appropriate cycle lengths shall be developed for the closed loop system. The following traffic signal timings are required:
  - a. Confirm that all signals have a minimum 4 second yellow and 2 second red and check that the formula meets latest MUTCD edition.
  - b. "Zero out" all density times.
  - c. Confirm pedestrian times meet MUTCD latest edition.
  - d. Confirm minimum green times are 6 seconds on left turn, 8 seconds on side streets and 10 seconds on Main Street.
  - e. Confirm all detection is "non-locking".

- 2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the area Traffic Signal Operations Engineer. Manual turning movements counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11 a.m. to 1 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday, and if necessary, on the weekend. Additional manual turning movement counts may be necessary if heavy traffic flows exist during off peak hours. The turning movement counts shall identify cars, heavy vehicles, buses, and pedestrian movements.
- 3. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District 3.
- 4. A traffic responsive program shall be developed, which considers both volume and occupancy. A time of day program shall be developed for use as a back-up system.
- 5. Proposed signal timing plan for the new or modified intersection shall be forwarded to IDOT for review prior to implementation.
- 6. Consultant shall conduct on-site implementation of the timings and make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
- 7. Speed and delay studies shall be conducted during each of the count periods along the system corridor in the field before and after implementation of the proposed timing plans for comparative evaluations. These studies should utilize specialized electronic timing and measuring devices.
- (b) The following deliverables shall be provided for OPTIMIZE TRAFFIC SIGNAL SYSTEM.
  - 1. The Consultant shall furnish to IDOT an original and one copy of the SCAT Report for the optimized system. The report shall contain the following:

## **Cover Page in Color Showing the System Map**

## Figures:

- 1. System overview map-showing system number, system schematic map with numbered system detectors, oversaturated movements, master location, system phone number, cycle lengths and date of completion.
- 2. General location map in color-showing signal system location in the metropolitan area.
- 3. Detail system location map in color-showing cross street names and local controller addresses.
- 4. Controller sequence-showing controller phase sequence diagrams.

# **Table of Contents**

## Tab 1: Final Report

- Project Overview
- 2. System and Location Description (Project Specific)
- 3. Methodology
- 4. Data Collection
- 5. Data Analysis and Timing Plan Development
- 6. Implementation
- 7. Evaluation
- 8. Speed and Delay Runs

## **Tab 2. Turning Movement Counts**

**1.** Turning Movements Counts (Showing turning movement counts in the intersection diagram for each period, including truck percentage.)

## Tab 3. Syncho Analysis

- 1. AM: Time-space diagram in color, followed by intersection Synchro report (Timing Report) summarizing the implemented timings.
- 2. Midday: Same as AM
- 3. PM: Same as AM

## Tab 4: Speed and Delay Studies

- 1. Summary of before and after runs results in two (2) tables showing travel time and delay time.
- 2. Plot of the before and after runs diagram for each direction and time period.

## **Tab 5: Electronic Files**

- 1. Two (2) CDs for the optimized system. The CDs shall include the following elements:
  - a. Electronic copy of the SCAT Report in PDF format.
  - b. Copies of the Synchro files for the optimized system.
  - c. Traffic counts for the optimized system.
  - d. New or updated intersection graphic display files for each of the system intersections and the system graphic display file including system detector locations and addresses.

Copies of the entire database including intersection displays and any other displays which the system software allows shall be furnished to the Department and to the Department's Traffic Signal Maintenance Contractor.

<u>Basis of Payment</u>: The work shall be paid at the contract unit each for OPTIMIZE TRAFFIC SIGNAL SYSTEM, which price shall be payment in full for performing all work described herein for the entire traffic signal system. Following the completion of traffic counts, 25 percent of the bid price will be paid. Following the completion of the Synchro analysis, 25 percent of the bid price will be paid.

Following the setup and fine tuning of the timings, the speed-delay study and the TRP programming, 25 percent of the bid price will be paid. The remaining 25 percent will be paid when the system is working to the satisfaction of the engineer and the report and CD have been submitted.

The radio interconnect system shall include the following components:

- a. Rack or shelf mounted RS-232 frequency hopping spread spectrum (FHSS) radio.
- b. Software for radio configuration (configure frequency and hopping patterns).
- c. Antennas (omni directional or yagi directional).
- d. Antenna cables, LMR400. low loss. Max. 100 Ft. from controller cabinet to antenna.
- e. Brackets, mounting hardware and accessories required for installation.
- f. RS232 data cable for connection from the radio to the local or master controller.
- g. All radio modems shall be frequency hopping spread spectrum. FHSS provides increased performance, higher data security and excellent interface rejection. Fifteen hopping patterns per bands, 105 total-user selectable. Hopping channels 50 to 112 and seven hopping bands-user selectable. Data must be encrypted.
- h. Manufacturing of radio modems will be in the United States of America with 100 percent performance testing over operating temperatures of -40 F to +75 C (-40 F to +167 F).
- i. RF connector is to be Type N female for shelf-mount or SMA female for rack-mount.
- j. Diagnostic connector is to be separate standard DB9 for shelf-mount or 3-pin mini sub-D for rack mount.

This work shall be paid for at the contract unit price LSUM for Temporary Traffic Signal Interconnect, which price shall be payment in full for furnishing-including the master controller cabinet, installing-including all modifications to any existing equipment, testing, maintaining and removing the temporary traffic signal interconnect system and all appurtenances as described above.

## REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

<u>General.</u> This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit. Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

- Station 1629+50 to Station 1630+50 (IL 26 Main Street) 0 to 60 feet LT (Midwest Bus Sales, Inc., PESA Site 1715V-2, 3135 North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 1630+50 to Station 1632+50 (IL 26 Main Street) 0 to 60 feet LT (Midwest Bus Sales, Inc., PESA Site 1715V-2, 3135 North Main Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1632+50 to Station 1634+00 (IL 26 Main Street) 0 to 60 feet LT (Midwest Bus Sales, Inc., PESA Site 1715V-2, 3135 North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1634+00 to Station 1635+00 (IL 26 Main Street) 0 to 60 feet LT (Kaplan Trucking and MTY Repair Services, PESA Site 1715V-3, 3103-3115 North Main Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1637+00 to Station 1638+00 (IL 26 Main Street) 0 to 60 feet LT (Holland and Sons, PESA Site 1715V-4, 20144 CR 1800 North). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 1639+00 to Station 1641+00 (IL 26 Main Street) 0 to 60 feet LT (Holland and Sons, PESA Site 1715V-4, 20144 CR 1800 North). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1641+00 to Station 1642+00 (IL 26 Main Street) 0 to 60 feet LT (Quality Coating Company, PESA Site 1715V-5, 2955 North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1642+00 to Station 1644+50 (IL 26 Main Street) 0 to 60 feet LT (Quality Coating Company, PESA Site 1715V-5, 2955 North Main Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

- Station 281+60 to Station 283+00 (IL 26 Main Street) 0 to 120 feet RT (IDOT ROW, PESA Site 1715V-9, 2900 block of North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 281+60 to Station 283+00 (IL 26 Main Street) 0 to 80 feet LT (IDOT ROW, PESA Site 1715V-9, 2900 block of North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 284+00 to Station 286+20 (IL 26 Main Street) 0 to 100 feet LT (Road Ranger and Bosselman Boss Shop, PESA Site 1715V-12, 2835 North Main Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 286+20 to Station 289+00 (IL 26 Main Street) 0 to 100 feet LT (Road Ranger and Bosselman Boss Shop, PESA Site 1715V-12, 2835 North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 289+00 to Station 290+20 (IL 26 Main Street) 0 to 100 feet LT (Road Ranger and Bosselman Boss Shop, PESA Site 1715V-12, 2835 North Main Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 290+20 to Station 293+00 (IL 26 Main Street) 0 to 100 feet LT (Road Ranger and Bosselman Boss Shop, PESA Site 1715V-12, 2835 North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 293+00 to Station 294+50 (IL 26 Main Street) 0 to 200 feet LT/RT (Epperson Run, PESA Site 1715V-13, 2800 block of North Main Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Iron, Lead, and Manganese.

# COARSE AGGREGATE QUALITY (BDE)

Effective: July 1, 2015

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

"(b) Quality. The coarse aggregate shall be according to the quality standards listed in the following table.

COARSE AGGREGATE QUALITY						
QUALITY TEST		CLASS				
QUALITI ILUI	Α	В	С	D		
Na <sub>2</sub> SO <sub>4</sub> Soundness 5 Cycle, ITP 104 <sup>1/</sup> , % Loss max.	15	15	20	25 <sup>2/</sup>		
Los Angeles Abrasion, ITP 96 111, % Loss max.	40 <sup>3/</sup>	40 4/	40 <sup>5/</sup>	45		
Minus No. 200 (75 μm) Sieve Material, ITP 11	1.0 6/		2.5 7/			
Deleterious Materials 10/						
Shale, % max.	1.0	2.0	4.0 8/			
Clay Lumps, % max.	0.25	0.5	0.5 8/			
Coal & Lignite, % max.	0.25					
Soft & Unsound Fragments, %	4.0	6.0	8.0 8/			
max.						
Other Deleterious, % max.	4.0 9/	2.0	2.0 8/			
Total Deleterious, % max.	5.0	6.0	10.0 <sup>8/</sup>			
Oil-Stained Aggregate 10/, % max	5.0	-				

- 1/ Does not apply to crushed concrete.
- 2/ For aggregate surface course and aggregate shoulders, the maximum percent loss shall be 30.
- 3/ For portland cement concrete, the maximum percent loss shall be 45.
- 4/ Does not apply to crushed slag or crushed steel slag.
- 5/ For hot-mix asphalt (HMA) binder mixtures, except when used as surface course, the maximum percent loss shall be 45.
- 6/ For crushed aggregate, if the material finer than the No. 200 (75 μm) sieve consists of the dust from fracture, essentially free from clay or silt, this percentage may be increased to 2.5.
- 7/ Does not apply to aggregates for HMA binder mixtures.
- 8/ Does not apply to Class A seal and cover coats.

9/ Includes deleterious chert. In gravel and crushed gravel aggregate, deleterious chert shall be the lightweight fraction separated in a 2.35 heavy media separation. In crushed stone aggregate, deleterious chert shall be the lightweight fraction separated in a 2.55 heavy media separation. Tests shall be run according to ITP 113.

10/ Test shall be run according to ITP 203.

11/ Does not apply to crushed slag.

All varieties of chert contained in gravel coarse aggregate for portland cement concrete, whether crushed or uncrushed, pure or impure, and irrespective of color, will be classed as chert and shall not be present in the total aggregate in excess of 25 percent by weight (mass).

Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (bridge superstructure products only, excluding the approach slab) shall contain no more than two percent by weight (mass) of deleterious materials. Deleterious materials shall include substances whose disintegration is accompanied by an increase in volume which may cause spalling of the concrete."

## COATED GALVANIZED STEEL CONDUIT (BDE)

Effective: January 1, 2013 Revised: January 1, 2015

Revise Article 811.03(b) of the Standard Specifications to read:

"(b) Coated Galvanized Steel Conduit. In addition to the methods described in Article 810.05(a) the following methods shall be observed when installing coated conduit.

Coated conduit pipe vise jaw adapters shall be used when the conduit is being clamped to avoid damaging the coating.

Coated conduit shall be cut with a roller cutter or by other means approved by the conduit manufacturer.

After any cutting or threading operations are completed, the bare steel shall be touched up with the conduit manufacturer's touch up compound."

# COILABLE NONMETALLIC CONDUIT (BDE)

Effective: August 1, 2014 Revised: January 1, 2015

Revise Article 1088.01(c) of the Standard Specifications to read:

"(c) Coilable Nonmetallic Conduit. The conduit shall be a high density polyethylene duct which is intended for underground use can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties or performance. The conduit and its manufacture shall be according to UL 651A for Schedule 40 conduit, except Schedule 80 shall be used under pavement, stabilized shoulder, paved median, paved driveway, curb and/or gutter and sidewalk.

Performance Tests. Testing procedures and test results shall meet the requirements of UL 651A. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the conduit."

# CONCRETE BOX CULVERTS WITH SKEWS ≤ 30 DEGREES REGARDLESS OF DESIGN FILL AND SKEWS > 30 DEGREES WITH DESIGN FILLS > 5 FEET (BDE)

Effective: April 1, 2012 Revised: April 1, 2014

Revise the second paragraph of Article 540.04 of the Standard Specifications to read:

"Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-in-place concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum. The precast box culvert sections shall be designed for the same design cover shown on the plans for cast-in-place box culvert; shall be of equal or larger size opening, and shall satisfy the design requirements of ASTM C 1577."

## CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: April 1, 2014 Revised: August 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

Revise the fifth paragraph of Article 606.07 of the Standard Specifications to read:

"Transverse contraction and longitudinal construction joints shall be sealed according to Article 420.12, except transverse joints in concrete curb and gutter shall be sealed with polysulfide or polyurethane joint sealant."

Add the following to Section 1050 of the Standard Specifications:

"1050.04 Polyurethane Joint Sealant. The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25 or better, Use T ( $T_1$  or  $T_2$ ), according to ASTM C 920."

## **CONTRACT CLAIMS (BDE)**

Effective: April 1, 2014

Revise the first paragraph of Article 109.09(a) of the Standard Specifications to read:

"(a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. As a minimum, the following information must accompany each claim submitted."

Revise Article 109.09(e) of the Standard Specifications to read:

"(e) Procedure. The Department provides two administrative levels for claims review.

Level I Engineer of Construction

Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.
- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim."

#### **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000 Revised: January 2, 2015

<u>FEDERAL OBLIGATION</u>. 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 Illinois Unified Certification Program (IL UCP) DBE Directory.

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.

<u>CONTRACTOR ASSURANCE</u>. 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, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

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 companies 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. The 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 7.00% 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 only 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 for in this Special Provision:

- (a) The bidder documents that enough 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.

<u>DBE LOCATOR REFERENCES</u>. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. 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 website at <a href="https://www.dot.il.gov">www.dot.il.gov</a>.

<u>BIDDING PROCEDURES</u>. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (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. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
  - (1) The names and addresses of DBE firms that will participate in the contract;
  - (2) A description, including pay item numbers, of the work each DBE will perform;
  - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state 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) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
  - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
  - (6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort 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, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere pro forma efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine 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. In accordance with Section 6 of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (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 apparent successful 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 the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of 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 determination shall become final if a request is not made and A request may provide additional written documentation or argument delivered. concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and 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 consideration, 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.

<u>CALCULATING DBE PARTICIPATION</u>. 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 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 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 following:
  - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
  - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (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 of 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.

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 Utilization 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. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

- (a) <u>NO AMENDMENT</u>. 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) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (c) <u>SUBCONTRACT</u>. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
  - (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
  - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
  - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a). Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE listed in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor. with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor:
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. 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 therefore 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 Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement 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 Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. 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.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my 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.

# **EQUAL EMPLOYMENT OPPORTUNITY (BDE)**

Effective: April 1, 2015

<u>FEDERAL AID CONTRACTS</u>. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

#### "EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

- (1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.

- (4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- (5) That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- (6) That it will permit access to all relevant books, records, accounts, and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- (7) That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

<u>STATE CONTRACTS</u>. Revise Section II of Check Sheet #5 of the Recurring Special Provisions to read:

#### "II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

- 1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- 2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.
- 4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- 6. That it will permit access to all relevant books, records, accounts and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

### FRICTION AGGREGATE (BDE)

Effective: January 1, 2011 Revised: November 1, 2014

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

- "(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
  - a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
  - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

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

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

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

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

Use	Mixture	Aggregates Allowed		
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	Allowed Alone or in Come Crushed Gravel Carbonate Crushed Limestone) <sup>2/</sup> Crystalline Crushed Store Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag <sup>4/</sup> Crushed Concrete <sup>3/</sup>	Stone (other than	
		Other Combinations Allo	wed:	
		Up to	With	
		25% Limestone	Dolomite	
		50% Limestone	Any Mixture D aggregate other than Dolomite	
		75% Limestone	Crushed Slag (ACBF) or Crushed Sandstone	
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	Allowed Alone or in Combination <sup>5/</sup> :  Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete <sup>3/</sup> No Limestone.		
		Other Combinations Allo	wed:	
		Up to	With	
		50% Dolomite <sup>2/</sup>	Any Mixture E aggregate	
		75% Dolomite <sup>2/</sup>	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone	
		75% Crushed Gravel or Crushed Concrete <sup>3/</sup>	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag	

Use	Mixture	Aggregates Allowed		
HMA High ESAL	F Surface IL-9.5 SMA Ndesign 80 Surface	Allowed Alone or in Combination <sup>5/</sup> :  Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.		
		Other Combinations Allowed:		
		Up to  50% Crushed Gravel, Crushed Concrete <sup>3/</sup> , or Dolomite <sup>2/</sup> Crushed Slag (ACB Crushed Steel Slag, Crystalline Crushe		

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

#### **GROOVING FOR RECESSED PAVEMENT MARKINGS (BDE)**

Effective: November 1, 2012 Revised: August 1, 2014

<u>Description</u>. This work shall consist of grooving the pavement surface in preparation for the application of recessed pavement markings.

<u>Equipment</u>. Equipment shall be according to the following.

- (a) Pavement Marking Tape Installations: The grooving equipment shall have a free-floating saw blade cutting head equipped with gang-stacked diamond saw blades. The diamond saw blades shall be of uniform wear and shall produce a smooth textured surface. Any ridges in the groove shall have a maximum height of 15 mils (0.38 mm).
- (b) Liquid and Thermoplastic Pavement Marking Installations: The grooving equipment shall be equipped with either a free-floating saw blade cutting head or a free-floating grinder cutting head configuration with diamond or carbide tipped cutters and shall produce an irregular textured surface.

#### CONSTRUCTION REQUIREMENTS

<u>General</u>. The Contractor shall supply the Engineer with a copy of the pavement marking material manufacturer's recommendations for constructing a groove.

<u>Pavement Grooving Methods</u>. The grooves for recessed pavement markings shall be constructed using the following methods.

- (a) Wet Cutting Head Operation. When water is required or used to cool the cutting head, the groove shall be flushed with high pressure water immediately following the cut to avoid build up and hardening of slurry in the groove. The pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.
- (b) Dry Cutting Head Operation. When used on HMA pavements, the groove shall be vacuumed or cleaned by blasting with high-pressure air to remove loose aggregate, debris, and dust generated during the cutting operation. When used on PCC pavements, the groove shall be flushed with high pressure water or shot blasted to remove any PCC particles that may have become destabilized during the grooving process. If high pressure water is used, the pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.

Pavement Grooving. Grooving shall not cause ravels, aggregate fractures, spalling or disturbance of the joints to the underlying surface of the pavement. Grooves shall be cut into the pavement prior to the application of the pavement marking material. Grooves shall be cut such that the width is 1 in. (25 mm) greater than the width of the pavement marking line as specified on the plans. Grooves for letters and symbols shall be cut in a square or rectangular shape so that the entire marking will fit within the limits of the grooved area. The position of the edge of the grooves shall be a minimum of 4 in. (100 mm) from the edge of all longitudinal joints. The depth of the groove shall not be less than the manufacturer's recommendations for the pavement marking material specified, but shall be installed to a minimum depth of 110 mils (2.79 mm) and a maximum depth of 200 mils (5.08 mm) for pavement marking tapes thermoplastic markings and a minimum depth of 40 mils (1.02 mm) and a maximum depth of 80 mils (2.03 mm) for liquid markings. The cutting head shall be operated at the appropriate speed in order to prevent undulation of the cutting head and grooving at an inconsistent depth.

At the start of grooving operations, a 50 ft (16.7 m) test section shall be installed and depth measurements shall be made at 10 ft (3.3 m) intervals within the test section. The individual depth measurements shall be within the allowable ranges according to this Article. If it is determined the test section has not been grooved at the appropriate depth or texture, adjustments shall be made to the cutting head and another 50 ft (16.7 m) test section shall be installed and checked. This process shall continue until the test section meets the requirements of this Article.

For new HMA pavements, grooves shall not be installed within 14 days of the placement of the final course of pavement.

<u>Final Cleaning</u>. Immediately prior to the application of the pavement marking material or primer sealer, the groove shall be cleaned with high-pressure air blast.

<u>Method of Measurement</u>. This work will be measured for payment in place, in feet (meter) for the groove width specified.

Grooving for letter, numbers and symbols will be measured in square feet (square meters).

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for GROOVING FOR RECESSED PAVEMENT MARKING of the groove width specified, and per square foot (square meter) for GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS.

The following shall only apply when preformed plastic pavement markings are to be recessed:

Add the following paragraph after the first paragraph of Article 780.07 of the Standard Specifications.

"The markings shall be capable of being applied in a grooved slot on new and existing portland cement concrete and HMA surfaces, by means of a pressure-sensitive, precoated adhesive, or liquid contact cement which shall be applied at the time of installation. A primer sealer shall be applied with a roller and shall cover and seal the entire bottom of the groove. The primer sealer shall be recommended by the manufacturer of the pavement marking material and shall be compatible with the material being used. The Contractor shall install the markings in the groove as soon as possible after the primer sealer cures according to the manufacturer's recommendations. The markings placed in the groove shall be rolled and tamped into the groove with a roller or tamper cart cut to fit the groove and loaded with or weighing at least 200 lb (90kg). Vehicle tires shall not be used for tamping. The Contractor shall roll and tamp the material with a minimum of 6 passes to prevent easy removal or peeling."

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

Effective: January 1, 2010 Revised: April 1, 2012

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

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

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

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. Confined Edge. Each confined edge density shall be represented by a oneminute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture	Parameter	Individual Test	Unconfined Edge
Composition		(includes confined	Joint Density
		edges)	Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4%	91.0%
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 - 96.0%	90.0%
IL-9.5,IL-9.5L,	Ndesign < 90	92.5 – 97.4%	90.0%
IL-12.5			
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 - 96.0%	90.0%
IL-19.0, IL-19.0L,	Ndesign < 90	93.0 – 97.4%	90.0%
IL-25.0			
SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

# HOT-MIX ASPHALT - MIXTURE DESIGN COMPOSITION AND VOLUMETRIC REQUIREMENTS (BDE)

Effective: November 1, 2013 Revised: November 1, 2014

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

"The minimum compacted thickness of each lift shall be according to Article 406.06(d)."

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

"The mixture composition used shall be IL-19.0."

Revise Article 355.05(a) of the Standard Specifications to read:

"(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0."

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder					
Nominal, Compacted, Leveling Mixture Composition Binder Thickness, in. (mm)					
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L				
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L				

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures."

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

"MINIMUM COMPACTED LIFT THICKNESS					
Mixture Composition Thickness, in. (mm)					
IL-4.75 3/4 (19)					
IL-9.5, IL-9.5L	1 1/4 (32)				
SMA-12.5	2 (51)				
IL-19.0, IL-19.0L	2 1/4 (57)"				

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

"Test strip mixture will be evaluated at the contract unit price according to the following."

Revise Article 406.14(a) of the Standard Specifications to read:

"(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price."

Revise Article 406.14(b) of the Standard Specifications to read:

"(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department's test results, the mixture will not be paid for and shall be removed at the Contractor's expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read:

"(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department's test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

"Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement."

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

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

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an Ndesign = 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, Ndesign = 90 the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, Ndesign = 50 or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Remove footnote 3/ from the tables and at the end of the tables in Article 1004.01(c) of the Standard Specifications.

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

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

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0	CA 11 <sup>1/</sup>
	IL-9.5	CA 16 and/or CA 13
		CA 16
HMA Low ESAL	IL-19.0L	CA 11 <sup>1/</sup>
	IL-9.5L	CA 16
	Stabilized Subbase	
	or Shoulders	

<sup>1/</sup> CA 16 or CA 13 may be blended with the gradations listed."

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

"High ESAL	IL-19.0 binder; IL-9.5 surface
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA) <sup>1/</sup> ; HMA Shoulders <sup>2/</sup>

<sup>1/</sup> Uses 19.0L binder mix.

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

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

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

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

- Note 1. Slaked quicklime shall be according to ASTM C 5.
- Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay.
- Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements.
- Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

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

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

High ESAL, MIXTURE COMPOSITION (% PASSING) 1/									
Sieve	IL-19.	0 mm	SMA 12.5 4/		IL-9.	IL-9.5 mm		IL-4.75 mm	
Size	min	max	min	max	min	max	min	max	
1 1/2 in (37.5 mm)									
1 in. (25 mm)		100							
3/4 in. (19 mm)	90	100		100					
1/2 in. (12.5 mm)	75	89	90	99		100		100	
3/8 in. (9.5 mm)			50	85	90	100		100	
#4 (4.75 mm)	40	60	20	40	32	69	90	100	
#8 (2.36 mm)	26	42	16	24 <sup>5/</sup>	32	52 <sup>2/</sup>	70	90	
#16 (1.18 mm)	15	30			10	32	50	65	
#50 (300 µm)	6	15			4	15	15	30	
#100 (150 µm)	4	9			3	10	10	18	
#200 (75 µm)	3	6	8.0	11.0 <sup>3/</sup>	4	6	7	9	
Ratio Dust/Asphalt Binder		1.0				1.0		1.0 3/	

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ The maximum percent passing the #635 (20  $\mu$ m) sieve shall be  $\leq$  3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent."

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

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

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

- 1/ Maximum Draindown for IL-4.75 shall be 0.3 percent
- 2/ VFA for IL-4.75 shall be 76-83 percent"

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS Low ESAL					
Mixture	Design Design VMA (Voids VFA (Voids				
Composition	Compactive	Air Voids	in the	Filled with	
	Effort	Target %	Mineral	Asphalt	
			Aggregate),	Binder),	
			% min.	%	
IL-9.5L	N <sub>DES</sub> =30	4.0	15.0	65-78	
IL-19.0L	N <sub>DES</sub> =30	4.0	13.5	N/A"	

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

# "(3) SMA Mixtures.

ESALs	Ndesign	Design	Voids in the	Voids Filled
(million)		Air Voids	Mineral	with Asphalt
		Target %	Aggregate	(VFA), %
			(VMA),	
			% min.	
≤ 10	50	4.0	16.0	75 – 80
> 10	80	4.0	17.0	75 – 80"

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

1		T 114 11 1
"Parameter	Frequency of Tests  High ESAL Mixture Low ESAL Mixture	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation  % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm)	1 washed ignition oven test on the mix per half day of production Note 3.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 1.	1 per half day of production	Illinois-Modified AASHTO T 308
VMA Note 2.	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO R 35
Air Voids  Bulk Specific Gravity of Gyratory Sample  Note 4.	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO T 312
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO T 209

- Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.
- Note 2. The  $G_{sb}$  used in the voids in the mineral aggregate (VMA) calculation shall be the same average  $G_{sb}$  value listed in the mix design.
- Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.
- Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270  $\pm$  5 °F (132  $\pm$  3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270  $\pm$  5 °F (132  $\pm$  3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

	= = =		
"Parameter	High ESAL Mixture		
	Low ESAL Mixture		
Ratio	0.6 to 1.2		
Dust/Asphalt Binder			
Moisture	0.3 %"		

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

"(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

CONTROL LIMITS						
Davagatas	High ESAL Low ESAL		SMA		IL-4.75	
Parameter	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: 1/						
1/2 in. (12.5 mm)	±6%	± 4 %	±6%	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
No. 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
No. 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
No. 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content No. 200 (75 μm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Content						
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>

- 1/ Based on washed ignition oven
- 2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS				
Mixture Composition	Parameter	Individual Test		
IL-4.75	Ndesign = 50	93.0 - 97.4 % <sup>1/</sup>		
IL-9.5	Ndesign = 90	92.0 - 96.0 %		
IL-9.5,IL-9.5L	Ndesign < 90	92.5 - 97.4 %		
IL-19.0	Ndesign = 90	93.0 - 96.0 %		
IL-19.0, IL-19.0L	Ndesign < 90	93.0 <sup>2/</sup> - 97.4 %		
SMA	Ndesign = 50 & 80	93.5 - 97.4 %		

- 1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
- 2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART	High ESAL,
REQUIREMENTS	Low ESAL, SMA
	& IL-4.75
	% Passing Sieves:
	1/2 in. (12.5 mm) <sup>2/</sup>
Gradation 1/3/	No. 4 (4.75 mm)
	No. 8 (2.36 mm)
	No. 30 (600 µm)
Total Dust Content 1/	No. 200 (75 µm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific
	Gravity of Mixture
	Voids
	Density
	VMA

- 1/ Based on washed ignition oven.
- 2/ Does not apply to IL-4.75.
- 3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

### HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)

Effective: November 1, 2013 Revised: November 1, 2014

<u>Description</u>. This special provision provides the requirements for Hamburg Wheel and tensile strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production. This special provision also provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

<u>Mix Design Testing.</u> Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324 Hamburg Wheel Test

AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (Illinois Modified AASHTO T 324) and the Tensile Strength Test (Illinois Modified AASHTO T 283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make necessary changes to the mix and provide passing Hamburg Wheel and tensile strength test results from a private lab. The Department will verify the passing results.

All new and renewal mix designs shall meet the following requirements for verification testing.

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

Illinois Modified	AASHTO 1	T 324 Re	auirements	1/
	$\Delta\Delta$	1 JZT 110	auun ennemia	

PG Grade	Number of Passes
PG 58-xx (or lower)	5,000
PG 64-xx	7,500
PG 70-xx	15,000
PG 76-xx (or higher)	20,000

- 1/ When produced at temperatures of  $275 \pm 5$  °F ( $135 \pm 3$  °C) or less, loose Warm Mix Asphalt shall be oven aged at  $270 \pm 5$  °F ( $132 \pm 3$  °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.
- (2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

<u>Production Testing</u>. Revise Article 1030.06(a) of the Standard Specifications to read:

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

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 µm)	*
No. 200 (75 µm)	*
Asphalt Binder	± 0.3 %
Content	

<sup>\*</sup> In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL Mixtures."

<u>System for Hydrated Lime Addition</u>. Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

<u>Basis of Payment</u>. Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

## **HOT MIX ASPHALT – PRIME COAT (BDE)**

Effective: November 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read:

"Note 1. The bituminous material used for prime coat shall be one of the types listed in the following table.

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion.

Application	Bituminous Material Types
Prime Coat on Brick, Concrete, or HMA Bases	SS-1, SS-1h, SS-1hP, SS-1vh, RS-1, RS-2, CSS-1, CSS-1h, CSS-1hp, CRS-1, CRS-2, HFE-90, RC-70
Prime Coat on Aggregate Bases	MC-30, PEP"

Add the following to Article 406.03 of the Standard Specifications.

"(i)	Vacuum Sweeper	1101.19
(i)	Spray Paver	1102.06"

Revise Article 406.05(b) of the Standard Specifications to read:

- "(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60 °F (15 °C).
  - (1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternative to air blasting, a vacuum sweeper may be used to accomplish the dust removal. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

Type of Surface to be Primed	Residual Asphalt Rate
	lb/sq ft (kg/sq m)
Milled HMA, Aged Non-Milled HMA, Milled Concrete,	0.05 (0.244)
Non-Milled Concrete & Tined Concrete	
Fog Coat between HMA Lifts, IL-4.75 & Brick	0.025 (0.122)

The bituminous material for the prime coat shall be placed one lane at a time. If a spray paver is not used, the primed lane shall remain closed until the prime coat is fully cured and does not pickup under traffic. When placing prime coat through an intersection where it is not possible to keep the lane closed, the prime coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m).

(2) Aggregate Bases. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of  $0.25 \text{ lb/sq ft} \pm 0.01 (1.21 \text{ kg/sq m} \pm 0.05)$ .

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or four hours for PEP. Pools of prime occurring in the depressions shall be broomed or squeegeed over the surrounding surface the same day the prime coat is applied.

The base shall be primed 1/2 width at a time. The prime coat on the second half/width shall not be applied until the prime coat on the first half/width has cured so that it will not pickup under traffic.

The residual asphalt rate will be verified a minimum of once per type of surface to be primed as specified herein for which at least 2000 tons (1800 metric tons) of HMA will be placed. The test will be according to the "Determination of Residual Asphalt in Prime and Tack Coat Materials" test procedure.

Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, and all areas where the pickup occurred shall be repaired.

If after five days, loss of prime coat is evident prior to covering with HMA, additional prime coat shall be placed as determined by the Engineer at no additional cost to the Department."

Revise the last sentence of the first paragraph of Article 406.13(b) of the Standard Specifications to read:

"Water added to emulsified asphalt, as allowed in Article 406.02, will not be included in the quantities measured for payment."

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

"Aggregate for covering prime coat will not be measured for payment."

Revise the first paragraph of Article 406.14 of the Standard Specifications to read:

"406.14 Basis of Payment. Prime Coat will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)."

Revise Article 407.02 of the Standard Specifications to read:

"407.02 Materials. Materials shall be according to Article 406.02, except as follows.

Item Article/Section
(a) Packaged Rapid Hardening Mortar or Concrete .......1018"

Revise Article 407.06(b) of the Standard Specifications to read:

"(b) A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b)."

Delete the second paragraph of Article 407.12 of the Standard Specifications.

Revise the first paragraph of Article 408.04 of the Standard Specifications to read:

"408.04 Method of Measurement. Bituminous priming material will be measured for payment according to Article 406.13."

Revise the first paragraph of Article 408.05 of the Standard Specifications to read:

"408.05 Basis of Payment. This work will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT) or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) and at the contract unit price per ton (metric ton) for INCIDENTAL HOT-MIX ASPHALT SURFACING."

Revise Article 1032.02 of the Standard Specifications to read:

"1032.02 Measurement. Asphalt binders, emulsified asphalts, rapid curing liquid asphalt, medium curing liquid asphalts, slow curing liquid asphalts, asphalt fillers, and road oils will be measured by weight.

A weight ticket for each truck load shall be furnished to the inspector. The truck shall be weighed at a location approved by the Engineer. The ticket shall show the weight of the empty truck (the truck being weighed each time before it is loaded), the weight of the loaded truck, and the net weight of the bituminous material.

When an emulsion or cutback is used for prime coat, the percentage of asphalt residue of the actual certified product shall be shown on the producer's bill of lading or attached certificate of analysis. If the producer adds extra water to an emulsion at the request of the purchaser, the amount of water shall also be shown on the bill of lading.

Payment will not be made for bituminous materials in excess of 105 percent of the amount specified by the Engineer."

Add the following to the table in Article 1032.04 of the Standard Specifications.

"SS-1vh	160-180	70-80
RS-1, CRS-1	75-130	25-55"

Add the following to Article 1032.06 of the Standard Specifications.

"(g) Non Tracking Emulsified Asphalt SS-1vh shall be according to the following.

Requirements for SS-1vh			
Test		SPEC	AASHTO Test Method
Saybolt Viscosity @ 25C,	SFS	20-200	T 72
Storage Stability, 24hr.,	%	1 max.	T 59
Residue by Evaporation,	%	50 min.	T 59
Sieve Test,	%	0.3 max.	T 59
Tests on Residue from Evaporation			
Penetration @25°C, 100g., 5 s	sec., dmm	20 max.	T 49
Softening Point,	°C	65 min.	T 53
Solubility,	%	97.5 min.	T 44
Orig. DSR @ 82°C,	kPa	1.00 min.	T 315"

Revise the last table in Article 1032.06(f)(2)d. of the Standard Specifications to read:

"Grade	Use
SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, SS-1vh	Prime or fog seal
PEP	Bituminous surface treatment prime
RS-2, HFE-90, HFE-150, HFE- 300, CRSP, HFP, CRS-2, HFRS-2	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing"

Add the following to Article 1101 of the Standard Specifications.

"1101.19 Vacuum Sweeper. The vacuum sweeper shall have a minimum sweeping path of 52 in. (1.3 m) and a minimum blower rating of 20,000 cu ft per minute (566 cu m per minute)."

Add the following to Article 1102 of the Standard Specifications:

"1102.06 Spray Paver. The spreading and finishing machine shall be capable of spraying a rapid setting emulsion tack coat, paving a layer of HMA, and providing a smooth HMA mat in one pass. The HMA shall be spread over the tack coat in less than five seconds after the application of the tack coat during normal paving speeds. No wheel or other part of the paving machine shall come into contact with the tack coat before the HMA is applied. In addition to meeting the requirements of Article 1102.03, the spray paver shall also meet the requirements of Article 1102.05 for the tank, heating system, pump, thermometer, tachometer or synchronizer, and calibration. The spray bar shall be equipped with properly sized and spaced nozzles to apply a uniform application of tack coat at the specified rate for the full width of the mat being placed."

### LRFD PIPE CULVERT BURIAL TABLES (BDE)

Effective: November 1, 2013 Revised: April 1, 2015

Revise Article 542.02 of the Standard Specifications to read as follows:

	"Item	Article/Section
(a)	Galvanized Corrugated Steel Pipe	
(b)	Galvanized Corrugated Steel Pipe Arch	1006.01
(c)	Bituminous Coated Corrugated Steel Pipe	
(d)	Bituminous Coated Corrugated Steel Pipe Arch	1006.01
(e)	Reserved	
(f)	Aluminized Steel Type 2 Corrugated Pipe	
(g)	Aluminized Steel Type 2 Corrugated Pipe Arch	
(h)	Precoated Galvanized Corrugated Steel Pipe	
(i)	Precoated Galvanized Corrugated Steel Pipe Arch	
(j)	Corrugated Aluminum Alloy Pipe	
(k)	Corrugated Aluminum Alloy Pipe Arch	
(l)	Extra Strength Clay Pipe	
(m)		
(n)	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	
(0)	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe	
(p)	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe	
(q)	Polyvinyl Chloride (PVC) Pipe	
(r)	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	
(s)	Corrugated Polypropylene (CPP) pipe with smooth Interior	
(t)	Corrugated Polyethylene (PE) Pipe with a Smooth Interior	
(u)	Polyethylene (PE) Pipe with a Smooth Interior	
(v)	Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete P	
(w)	Mastic Joint Sealer for Pipe	
(x)	External Sealing Band	1057
(y)	Fine Aggregate (Note 1)	
(z)	Coarse Aggregate (Note 2)	1004.05

(aa) Packaged Rapid Hardening Mortar or Concrete	1018
(bb) Nonshrink Grout	
(cc) Reinforcement Bars and Welded Wire Fabric	
(dd) Handling Hole Plugs	1042.16

# Note 1. The fine aggregate shall be moist.

# Note 2. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 542.03 of the Standard Specifications as follows:

"Class	Materials
	Rigid Pipes:
'`	Extra Strength Clay Pipe
	Concrete Sewer Storm Drain and Culvert Pipe, Class 3
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
С	Rigid Pipes:
	Extra Strength Clay Pipe
	Concrete Sewer Storm Drain and Culvert Pipe, Class 3
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
	Flexible Pipes:
	Aluminized Steel Type 2 Corrugated Pipe
	Aluminized Steel Type 2 Corrugated Pipe Arch
	Precoated Galvanized Corrugated Steel Pipe Precoated Galvanized Corrugated Steel Pipe Arch
	Corrugated Aluminum Alloy Pipe
	Corrugated Aluminum Alloy Pipe Arch
	Polyvinyl Chloride (PVC) Pipe
	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
	Polyethylene (PE) Pipe with a Smooth Interior
	Corrugated Polypropylene (CPP) Pipe with Smooth Interior
D	Rigid Pipes:
	Extra Strength Clay Pipe
	Concrete Sewer Storm Drain and Culvert Pipe, Class 3
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
	Flexible Pipes:
	Galvanized Corrugated Steel Pipe
	Galvanized Corrugated Steel Pipe Arch Bituminous Coated Corrugated Steel Pipe
	Bituminous Coated Corrugated Steel Pipe Arch
	Aluminized Steel Type 2 Corrugated Pipe
	Aluminized Steel Type 2 Corrugated Pipe Arch
	Precoated Galvanized Corrugated Steel Pipe
	Precoated Galvanized Corrugated Steel Pipe Arch
	Corrugated Aluminum Alloy Pipe
	Corrugated Aluminum Alloy Pipe Arch
	Polyvinyl Chloride (PVC) Pipe
	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
	Corrugated Polyethylene (PE) Pipe with a Smooth Interior
	Polyethylene (PE) Pipe with a Smooth Interior"
	Corrugated Polypropylene (CPP) Pipe with Smooth Interior

Revise Articles 542.03(b) and (c) of the Standard Specifications to read:

- "(b) Extra strength clay pipe will only be permitted for pipe culverts Type 1, for 10 in., 12 in., 42 in. and 48 in. (250 mm, 300 mm, 1050 mm and 1200 mm), Types 2, up to and including 48 in. (1200 mm), Type 3, up to and including 18 in. (450 mm), Type 4 up to and including 10 in. (250 mm), for all pipe classes.
- (c) Concrete sewer, storm drain, and culvert pipe Class 3 will only be permitted for pipe culverts Type 1, up to and including 10 in (250 mm), Type 2, up to and including 30 in. (750 mm), Type 3, up to and including 15 in. (375 mm); Type 4, up to and including 10 in. (250 mm), for all pipe classes."

Replace the pipe tables in Article 542.03 of the Standard Specifications with the following:

		for the Resp		es of Reinforced Co Pipe and Fill Heigh	ncrete Pipe ts over the Top of the	e Pipe	
	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
Nominal	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:
Diameter in.	3' and less 1' min cover	Greater than 3' not exceeding 10'	Greater than 10' not exceeding 15'	Greater than 15' not exceeding 20'	Greater than 20' not exceeding 25'	Greater than 25' not exceeding 30'	Greater than 30' not exceeding 35'
12	IV	II	III	IV	IV	V	V
15	IV	II	III	IV	IV	V	V
18	IV	II	III	IV	IV	V	V
21	III	=	III	IV	IV	V	V
24	III	II	III	IV	IV	V	V
30	IV	II	III	IV	IV	V	V
36	III	=	III	IV	IV	V	V
42	II	II	III	IV	IV	V	V
48	II	II	III	IV	IV	V	V
54	II	II	III	IV	IV	V	V
60	II	II	III	IV	IV	V	V
66	II	II	III	IV	IV	V	V
72	II	=	III	IV	V	V	V
78	II	II	III	IV	2020	2370	2730
84	II	II	III	IV	2020	2380	2740
90	II	II	III	1680	2030	2390	2750
96	II	III	III	1690	2040	2400	2750
102	II	III	III	1700	2050	2410	2760
108	II	III	1360	1710	2060	2410	2770

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required. Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

#### Table IA: Classes of Reinforced Concrete Pipe for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe (Metric)

	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
Nominal Diameter mm	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:
	1 m and less 0.3 m	Greater than 1 m not	Greater than 3 m not	Greater than 4.5 m not	Greater than 6 m not	Greater than 7.5 m not	Greater than 9 m not
	min cover	exceeding 3 m	exceeding 4.5 m	exceeding 6 m	exceeding 7.5 m	exceeding 9 m	exceeding 10.5 m
300	IV	II	III	IV	IV	V	V
375	IV	II	III	IV	IV	V	V
450	IV	II	III	IV	IV	V	V
525	III	II	III	IV	IV	V	V
600	III	II	III	IV	IV	V	V
750	IV	II	III	IV	IV	V	V
900	III	II	III	IV	IV	V	V
1050	II	II	III	IV	IV	V	V
1200	II	II	III	IV	IV	V	V
1350	II	II	III	IV	IV	V	V
1500	II	II	III	IV	IV	V	V
1650	II	II	III	IV	IV	V	V
1800	II	II	III	IV	V	V	V
1950	II	II	III	IV	100	110	130
2100	II	II	III	IV	100	110	130
2250	II	=	III	80	100	110	130
2400	II	III	III	80	100	110	130
2550	II	III	III	80	100	120	130
2700	II	III	70	80	100	120	130

#### Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.

Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

#### TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2", 3"x1" AND 5"x1" CORRUGATIONS

ļ. —	-	Type 1			Type 2			Type 3			Type 4			Type 5			Type 6			Type 7	
neter	Fil	I Height:		F	ill Heigh	t:	F	ill Heigh	t:	F	ill Height	t:		Fill Heigh	t:		Fill Height			Fill Height:	:
Diar .*																					
Nominal Diameter in.*		and less nin. cove			eater than exceeding			ater than			ater than exceeding		_	reater than t exceeding			eater than exceeding			eater than exceeding	
ž	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"	2 2/3" x 1/2"	3"x1"	5"x1"
12	0.064			0.064			0.064			0.064			0.064			0.064			0.064		
15	0.064			0.064			0.064			0.064			0.064			0.064			(0.079)		
18	(0.079)			0.064			0.064			0.064			0.064			(0.079)			(0.079)		
21	(0.079)			0.064			0.064			0.064			(0.079)			(0.079)			(0.079)		
24	(0.079)			0.064			0.064			0.064			(0.079)			(0.079)			(0.109)		
30	(0.109E)			0.064			0.064			(0.079)			(0.079)			(0.109)			0.109		
36	(0.109E)			0.064			(0.079)			(0.079)			(0.109)			0.109			(0.138E)		
42 48	0.079 0.109	(0.109)	0.109	0.064 (0.109)	0.079	0.079	(0.079) (0.109)	0.079	(0.109)	(0.079) 0.109	(0.109)	0.109	(0.109) (0.138)	(0.109)	0.109	(0.109E) (0.138E)	0.109	0.109	(0.109E) (0.138E)	0.109	(0.138)
54		(0.109)	0.109	(0.109)	0.079	0.079	0.109	(0.109)	0.109	0.109	(0.109)	0.109	(0.138)	0.109	0.109	(0.138E)	0.109	(0.138)	(0.138E)	0.138	0.138
60	0.109	0.109	0.109	0.109	0.079	(0.109)	0.109	(0.109)	0.109	0.109	(0.109)	0.109	(0.138)	0.109	0.109	(0.138E)	(0.138)	(0.138)	0.138E	(0.138E)	(0.138E)
66	(0.138)	0.109	0.109	0.109	0.079	(0.109)	0.109	(0.109)	0.109	0.109	0.109	0.109	(0.138)	0.109	(0.138)	(0.138E)	0.138	0.138	0.138E	(0.138E)	0.138E
72	0.138	0.109	(0.138)	0.138	(0.109)	(0.109)	0.138	(0.109)	0.109	0.138	0.109	0.109	0.138	(0.138)	(0.138)	(0.168E)	(0.138E)	0.138E	(0.168E)	(0.138E)	0.138E
78	0.168	0.109	(0.138)	0.168	(0.109)	0.109	0.168	0.109	0.109	0.168	0.109	(0.138)	0.168	(0.138)	(0.138)	H0.168E	(0.138E)	0.138E	H0.168E	0.138E	(0.168E)
84	0.168	(0.138)	(0.138)	0.168	(0.109)	0.109	0.168	0.109	0.109	0.168	0.109	(0.138)	0.168	(0.138)	0.138	H0.168E	(0.138E)	0.138E	H0.168E	(0.168E)	(0.168E)
90		(0.138)	(0.138)		(0.109)	0.109		0.109	0.109		(0.138)	(0.138)		(0.138)	0.138		0.138E	(0.168E)		(0.168E)	(0.168E)
96		(0.138)	(0.138)		(0.109)	0.109		0.109	0.109		(0.138)	(0.138)		(0.138)	0.138		(0.168E)	(0.168E)		(0.168E)	(0.168E)
102		0.109Z			(0.109)	0.109		0.109	(0.138)		(0.138)	(0.138)		(0.138)	0.138		(0.168E)	(0.168E)			
108		0.109Z			0.109	0.109		0.109	(0.138)		(0.138)	0.138		0.138	(0.168)		(0.168E)	(0.168E)			
114		0.109Z	,		0.109	0.109		0.109	(0.138)		(0.138)	0.138		(0.168)	(0.168)		(0.168E)	0.168E		H0.138E	H0.168E
120			(0.138Z)		0.109 0.138	0.109 0.138		(0.138) 0.138	(0.138) 0.138		(0.138)	0.138		(0.168)	(0.168)		H0.138E	H0.168E H0.168E		H0.168E	H0.168E
126 132		0.138Z 0.138Z			0.138	0.138		0.138	0.138		0.138	(0.168) (0.168)		(0.168) 0.168	(0.168) 0.168		H0.138E H0.138E	H0.168E		H0.168E	
138		0.138Z			0.138	0.138		0.138	0.138		(0.168)	(0.168)		(0.168E)			H0.168E	H0.168E		H0.168E	HU. 100E
144		0.168Z			0.138	0.138		0.138	0.138		0.168	0.168		(	H0.168E			H0.168E		H0.168E	
	tes.	J. 100Z	U. 100Z	l .	0.100	0.100	l .	5.100	3.100		5.100	5.100		11.0.100L	1.10.100L		1.0.100L	1.10.100L		. 10. TOOL	

Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 42" according to Article 1006.01, 1 1/2" x 1/4" corrugations shall be used for diameters less than 12". Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by "H" indicates only helical seam fabrication is allowed.

E Elongation according to Article 542.04(e) Z 1'-6" Minimum fill

# TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm, 75 mm x 25 mm AND 125 mm x 25 mm CORRUGATIONS

<u></u>		Type 1			Type 2			Type 3			Type 4			Type 5			Type 6			Type 7	
nete	F	ill Heigh	t:	F	ill Heigh	t:		Fill Heigh	nt:		Fill Heigh	nt:		Fill Heigh	nt:		Fill Heigh	nt:	ı	Fill Heigh	ıt:
Nominal Diameter mm *		m and le			ater than			ater thar	-		ater than			eater thar			ater than			ater thar	-
ina T		m min. c		not e	exceeding	3 m	not e	xceeding	4.5 m	not (	exceedin			exceeding	7.5 m		exceedin		not ex	ceeding	10.5 m
Non	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm
300	1.63			1.63			1.63			1.63			1.63			1.63			1.63		
375	1.63			1.63			1.63			1.63			1.63			1.63			(2.01)		
450	(2.01)			1.63			1.63			1.63			1.63			(2.01)			(2.01)		
525	(2.01)			1.63			1.63			1.63			(2.01)			(2.01)			(2.01)		
600	(2.01)			1.63			1.63			1.63			(2.01)			(2.01)			(2.77)		
750	(2.77E)			1.63			1.63			(2.01)			(2.01)			(2.77)			2.77		
900	(2.77E)			1.63			(2.01)			(2.01)			(2.77)			2.77			(3.51E)		
1050	2.01			1.63			(2.01)			(2.01)			(2.77)			(2.77E)			(2.77E)		
1200	2.77	(2.77)	2.77	(2.77)	2.01	2.01	(2.77)	2.01	(2.77)	2.77	(2.77)	2.77	(3.51)	(2.77)	2.77	(3.51E)	2.77	2.77	(3.51E)	2.77	(3.51)
1350	2.77	(2.77)	2.77	(2.77)	2.01	2.01	2.77	(2.77)	2.77	2.77	(2.77)	2.77	(3.51)	2.77	2.77	(3.51E)	2.77	(3.51)	(3.51E)	3.51	3.51
1500	2.77	2.77	2.77	2.77	2.01	(2.77)	2.77	(2.77)	2.77	2.77	(2.77)	2.77	(3.51)	2.77	2.77	(3.51E)	(3.51)	(3.51)		(3.51E)	(3.51E)
1650	(3.51)	2.77	2.77	2.77	2.01	(2.77)	2.77	(2.77)	2.77	2.77	2.77	2.77	(3.51)	2.77	(3.51)	(3.51E)	3.51	3.51		(3.51E)	3.51E
1800	3.51	2.77	(3.51)	3.51	(2.77)	(2.77)	3.51	(2.77)	2.77	3.51	2.77	2.77	3.51	(3.51)	(3.51)	(4.27E)	(3.51E)	3.51E	(4.27E)	` '	3.51E
1950	4.27	2.77	(3.51)	4.27	(2.77)	2.77	4.27	2.77	2.77	4.27	2.77	(3.51)	4.27	(3.51)	, ,	H 4.27E	` ,	3.51E	H 4.27E		(4.27E)
2100 2250	4.27	(3.51)	(3.51)	4.27	(2.77)	2.77 2.77	4.27	2.77	2.77 2.77	4.27	(3.51)	(3.51)	4.27	(3.51)	3.51 3.51	H 4.27E	(3.51E) 3.51E	3.51E (4.27E)	H 4.27E	(4.27E)	(4.27E) (4.27E)
2400		(3.51)	(3.51)		(2.77)	2.77		2.77	2.77		(3.51)	(3.51)		(3.51)	3.51		(4.27E)	,		(4.27E)	` '
2550		2.77Z	2.77Z		(2.77)	2.77		2.77	(3.51)		(3.51)	(3.51)		(3.51)	3.51		(4.27E)	` ,		'	H 4.27E
2700		2.77Z	(3.51Z)		2.77	2.77		2.77	(3.51)		(3.51)	3.51		3.51	(4.27)		(4.27E)	,			H 4.27E
2850		2.77Z	(3.51Z)		2.77	2.77		2.77	(3.51)		(3.51)	3.51		(4.27)	(4.27)		(4.27E)	4.27E		H 3.51E	H 4.27E
3000		2.77Z	(3.51Z)		2.77	2.77		(3.51)	(3.51)		(3.51)	3.51		(4.27)	(4.27)		H 3.51E	H 4.27E		H 4.27E	H 4.27E
3150		3.51Z	3.51Z		3.51	3.51		3.51	3.51		3.51	(4.27)		(4.27)	(4.27)		H 3.51E	H 4.27E		H 4.27E	H 4.27E
3300		3.51Z	3.51Z		3.51	3.51		3.51	3.51		(4.27)	(4.27)		4.27	4.27		H 3.51E	H 4.27E		H 4.27E	H 4.27E
3450		3.51Z	3.51Z		3.51	3.51		3.51	3.51		(4.27)	(4.27)		(4.27E)	H 4.27E			H 4.27E		H 4.27E	
3600		4.27Z	4.27Z		4.27	4.27		4.27	4.27		4.27	4.27		H 4.27E	H 4.27E		H 4.27E	H 4.27E		H 4.27E	

#### Notes:

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

E Elongation according to Article 542.04(e)

450 mm Minimum Fill

Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 1050 mm according to Article 1006.01, 38 mm x 6.5 mm corrugations shall be used for diameters less

#### TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2" AND 3"x1" CORRUGATIONS Diameter Type 1 Type 2 Type 3 Type 4 Type 5 Type 6 Type 7 Fill Height: Greater than 3' Greater than 10' Greater than 20' Greater than 30' 3' and less Greater than 15' Greater than 25' Nominal 1' min. cover not exceeding 10' not exceeding 15' not exceeding 20' not exceeding 25' not exceeding 30' not exceeding 35' 3"x1" 2 2/3"x1/2" 2 2/3"x1/2" 2 2/3"x1/2" 2 2/3"x1/2" 3"x1" 2 2/3"x1/2" 2 2/3"x1/2" 2 2/3"x1/2" 3"x1" 3"x1" 3"x1" 3"x1" 12 (0.075)0.060 0.060 0.060 0.060 0.060 0.060 15 (0.075)0.060 0.060 0.060 0.060 0.060 (0.075)18 (0.075)0.060 0.060 0.060 0.060 (0.075)H 0.060 H 0.060E 21 H 0.060E 0.060 0.060 0.060 (0.075)H 0.060 24 (0.105E) 0.060 0.060 (0.075)(0.105)(0.105E)(0.105)H 0.075E | H 0.060 30 H 0.075E H 0.060 0.075 H 0.060 0.075 H 0.060 (0.105)H 0.060 (0.105)H 0.060 H 0.075E H 0.060 H 0.075E H 0.060E 36 H 0.060E 0.075 H 0.060 (0.105)H 0.060 H 0.060 H 0.060 H 0.075E H 0.060 (0.135E)(0.105)(0.135)42 0.105E (0.075)0.105 0.060 0.105 0.060 0.105 0.060 (0.075)0.105E 0.105 0.105E (0.105E)0.105 48 0.105E (0.075)0.105 0.060 0.105 0.060 0.105 (0.075)0.105 (0.105)0.105E (0.105E)0.105E (0.135E)54 0.105E (0.105)0.105 0.060 0.105 0.060 0.105 (0.075)0.105 (0.105)0.105E (0.105E)(0.135E)(0.135E) 60 0.135E (0.105)0.135 0.060 0.135 (0.075)0.135 (0.105)0.135 (0.105)0.135E (0.135E)(0.164E)(0.135E)0.164E (0.105)0.060 (0.075)0.164 (0.105)0.164 (0.135)0.164E (0.135E)H 0.164E (0.135E)

0.164

(0.105)

(0.105)

(0.135)

(0.135)

(0.135)

0.135

0.135

0.164

0.164

0.164

(0.135)

(0.135)

(0.135)

(0.135)

(0.135)

(0.164)

(0.164)

0.164

0.164

H 0.164E

(0.135E)

(0.135E)

(0.164E)

(0.164E)

(0.164E)

(0.164E)

(0.164E)

H 0.164E

H 0.164E

H 0.164E

(0.164E)

(0.164E)

(0.164E)

(0.164E)

H 0.135E

H 0.135E

H 0.164E

H 0.164E

#### 120 Notes:

66

72

78

84

90

96

102

108

114

0.164E

(0.105)

(0.135)

(0.135)

(0.135)

(0.135)

0.135Z

0.135Z

0.164Z

0.164Z

0.164

0.164

0.060

0.075

0.105

0.105

0.105

0.135

0.135

0.164

0.164

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

(0.075)

(0.105)

0.105

0.105

0.105

0.135

0.135

0.164

0.164

0.164

0.164

E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 1'-6"

Z 1"-6" Minimum fill

#### TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm AND 75 mm x 25 mm CORRUGATIONS (Metric)

	_		_		_	•	_		_	_	_		_	_
ter	Тур		,,	e 2	Туре			e 4	Тур	e 5	Тур		Тур	e /
me.	Fill H	eight:	Fill H	eight:	Fill He	eight:	Fill H	eight:	Fill He	eight:	Fill He	eight:	Fill He	eight:
Nominal Diameter mm	1 m ar	nd less	Greater	than 1 m	Greater t	han 3 m	Greater th	nan 4.5 m	Greater t	han 6 m	Greater th	an 7.5 m	Greater t	han 9 m
la L		in. cover		eding 3 m	not exceed		not excee		not exceed			-	not exceedi	
omo	68 x 13	75 x 25	68 x 13	75 x 25	68 x 13	75 x 25	68 x 13	75 x 25	68 x 13	75 x 25	68 x 13	75 x 25	68 x 13	75 x 25
Z	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
300	(1.91)		1.52		1.52		1.52		1.52		1.52		1.52	
375	(1.91)		1.52		1.52		1.52		1.52		1.52		(1.91)	
450	(1.91)		1.52		1.52		1.52		1.52		(1.91)		H 1.52	
525	H 1.52E		1.52		1.52		1.52		(1.91)		H 1.52		H 1.52E	
600	(2.67E)		1.52		1.52		(1.91)		(2.67)		(2.67)		(2.67E)	
750	H 1.91E	H 1.52	1.91	H 1.52	1.91	H 1.52	(2.67)	H 1.52	(2.67)	H 1.52	H 1.91E	H 1.52	H 1.91E	H 1.52
900	(3.43E)	H 1.52E	1.91	H 1.52	(2.67)	H 1.52	(2.67)	H 1.52	(3.43)	H 1.52	H 1.91E	H 1.52	H 1.91E	H 1.52E
1050	2.67E	(1.91)	2.67	1.52	2.67	1.52	2.67	1.52	2.67	(1.91)	2.67E	2.67	2.67E	(2.67E)
1200	2.67E	(1.91)	2.67	1.52	2.67	1.52	2.67	(1.91)	2.67	(2.67)	2.67E	(2.67E)	2.67E	(3.43E)
1350	2.67E	(2.67)	2.67	1.52	2.67	1.52	2.67	(1.91)	2.67	(2.67)	2.67E	(2.67E)	(3.43E)	(3.43E)
1500	3.43E	(2.67)	3.43	1.52	3.43	(1.91)	3.43	(2.67)	3.43	(2.67)	3.43E	(3.43E)	(4.17E)	(3.43E)
1650	4.17E	(2.67)	4.17	1.52	4.17	(1.91)	4.17	(2.67)	4.17	(3.43)	4.17E	(3.43E)	H 4.17E	(3.43E)
1800	4.17E	(2.67)	4.17	1.52	4.17	(1.91)	4.17	(2.67)	4.17	(3.43)	H 4.17E	(3.43E)	H 4.17E	(4.17E)
1950		(3.43)		1.91		(2.67)		(2.67)		(3.43)		(3.43E)		(4.17E)
2100		(3.43)		2.67		2.67		(3.43)		(3.43)		(4.17E)		(4.17E)
2250		(3.43)		2.67		2.67		(3.43)		(3.43)		(4.17E)		(4.17E)
2400		(3.43)		2.67		2.67		(3.43)		(3.43)		(4.17E)		H 3.43E
2550		3.43Z		3.43		3.43		3.43		(4.17)		(4.17E)		H 3.43E
2700		3.43Z		3.43		3.43		3.43		(4.17)		(4.17E)		H 4.17E
2850		4.17Z		4.17		4.17		4.17		4.17		H 4.17E		H 4.17E
3000		4.17Z		4.17		4.17		4.17		4.17		H 4.17E		

#### Notes:

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 450 mm.

Z 450 mm Minimum fill

				Т			KNESS FO												ES			
	Corri	ugated	Corru	haten						Type 1					Type 2					Type 3		
Equivalent Round Size in.	Ste Alum Pipe	el & ninum Arch x 1/2"	Ster Alum Pipe 3" >	el & inum Arch	Corru Ste Pipe 5" 2	eel Arch	Min. Cover			ill Height			Grea		Il Height: 3' not exc	ceeding '	10'	Gre		Fill Heigh	nt: exceeding	g 15'
quiv	Span	Rise	Span	Rise	Span	Rise	Steel &		Steel		Alum	inum		Steel		Alumi	inum		Steel		Alum	inum
Ш	(in.)*	(in.)	(in.)	(in.)	(in.)	(in.)	Aluminum	2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"	2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"	2 2/3" x 1/2"	3"x1"	5" x 1"	2 2/3" x 1/2"	3"x1"
15	17	13					1'-6"	0.064			0.060		0.064			0.060		0.064			0.060	
18	21	15					1'-6"	0.064			0.060		0.064			0.060		0.064			0.060	
21	24	18					1'-6"	0.064			(0.075)		0.064			0.060		0.064			0.060	
24	28	20					1'-6"	(0.079)			(0.105)		0.064			0.075		0.064			0.075	
30	35	24					1'-6"	(0.079)			(0.105)		0.064			0.075		(0.079)			(0.105)	
36	42	29					1'-6"	(0.079)			0.105		0.064			0.105		0.064			0.105	
42	49	33					1'-6"	0.109			0.105		(0.109)			0.105		(0.109)			0.105	
48	57	38	53	41	53	41	1'-6"	0.109	(0.109)	` ,	0.135	0.060	0.109	0.079	0.079	0.135	0.060	0.109	0.079	(0.109)	0.135	0.060
54	64	43	60	46	60	46	1'-6"	0.109	(0.109)	0.109	0.164	(0.075)	0.109	0.079	0.079	0.164	0.060	0.109	(0.109)	0.109	0.164	(0.075)
60	71	47	66	51	66	51	1'-6"	0.138	(0.109)		0.164	(0.075)	0.138	0.079	(0.109)	0.164	0.060	0.138	(0.109)	0.109	0.164	(0.075)
66	77	52	73	55	73	55	1'-6" 1'-6"	0.168	(0.109)			0.075	0.168	0.079	(0.109)		0.075	0.168	(0.109)	0.109		0.075
72 78	83	57	81 87	59 63	81 87	59 63	1'-6"	0.168	(0.109)	0.109		0.105	0.168	0.079	(0.109)		0.105	0.168	(0.109)	0.109		0.105
78 84			95	63 67	95	63 67	1'-6"		0.109	0.109		0.105		(0.109)	0.109		0.105		0.109	0.109 0.109		0.105
90			103	71	103	71	1'-6"		0.109 0.109	0.109 0.109		0.105 0.135		(0.109) (0.109)	0.109 0.109		0.105 0.135		0.109 0.109	0.109		0.105 0.135
96			112	75	112	75	1'-6"		0.109	(0.138)		0.164		0.109)	0.109		0.164		0.109	(0.138)		0.133
102			117	79	117	79	1'-6"		0.109	(0.138)		0.164		0.109	0.109		0.164		0.109	(0.138)		0.164
108			128	83	128	83	1'-6"		0.138	0.138		3.101		0.138	0.138		3.104		0.138	0.138		3.101
114			137	87	137	87	1'-6"		0.138	0.138				0.138	0.138				0.138	0.138		
120			142	91	142	91	1'-6"		0.168	0.168				0.168	0.168				0.168	0.168		

#### Notes:

<sup>\*</sup> Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 42" according to Article 1006.01.

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.

The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 3 tons per square foot.

The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 2 tons per square foot.

This minimum bearing capacity will be determined by the Engineer in the field.

# Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)

										Type 1					Type 2					Type 3		
Size	Corrug Ste		Corru Ste			gated				Fill Heigh	nt-			F	ill Heigh	t:				Fill Height		
pur	& Alum	ninum	& Alur	ninum		eel Arch	Min. Cover			ı ılı ı leigi	it.											
Equivalent Round (mm)	Pipe / 68 x 13		Pipe 75 x 2			25 mm			1	m and le	ess		Grea	ter than	1 m not e	exceeding	3 m	Grea	ter than 3	3 m not ex	ceeding 4	4.5 m
alen										-											1	
l ink	Span	Rise	Span	Rise	Span	Rise	Steel &		Steel		Alumi			Steel		Alum			Steel		Alum	
Ш	(mm)*	(mm)	(mm)	(mm)	(mm)	(mm)	Aluminum	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm
375	430	330					0.5 m	1.63			1.52		1.63			1.52		1.63			1.52	
450	530	380					0.5 m	1.63			1.52		1.63			1.52		1.63			1.52	
525	610	460					0.5 m	1.63			(1.91)		1.63			1.52		1.63			1.52	
600	710	510					0.5 m	(2.01)			(2.67)		1.63			1.91		1.63			1.91	
750	870	630					0.5 m	(2.01)			(2.67)		1.63			1.91		(2.01)			(2.67)	
900	1060	740					0.5 m	(2.01)			2.67		1.63			2.67		1.63			2.67	
1050	1240	840					0.5 m	2.77			2.67		(2.77)			2.67		(2.77)			2.67	
1200	1440	970	1340	1050	1340	1050	0.5 m	2.77	(2.77)	(2.77)	3.43	1.52	2.77	2.01	2.01	3.43	1.52	2.77	2.01	(2.77)	3.43	1.52
1350	1620	1100	1520	1170	1520	1170	0.5 m	2.77	(2.77)	2.77	4.17	(1.91)	2.77	2.01	2.01	4.17	1.52	2.77	(2.77)	2.77	4.17	(1.91)
1500	1800	1200	1670	1300	1670	1300	0.5 m	3.51	(2.77)	2.77	4.17	(1.91)	3.51	2.01	(2.77)	4.17	1.52	3.51	(2.77)	2.77	4.17	(1.91)
1650		1320	1850	1400	1850	1400	0.5 m	4.27	(2.77)	2.77		1.91	4.27	2.01	(2.77)		1.91	4.27	(2.77)	2.77		1.91
1800		1450	2050	1500	2050	1500	0.5 m	4.27	(2.77)	2.77		2.67	4.27	2.01	(2.77)		2.67	4.27	(2.77)	2.77		2.67
1950			2200	1620	2200	1620	0.5 m		2.77	2.77		2.67		(2.77)	2.77		2.67		2.77	2.77		2.67
2100			2400	1720	2400	1720	0.5 m		2.77	2.77		2.67		(2.77)	2.77		2.67		2.77	2.77		2.67
2250			2600	1820	2600	1820	0.5 m		2.77	2.77		3.43		(2.77)	2.77		3.43		2.77	2.77		3.43
2400			2840	1920	2840	1920	0.5 m		2.77	(3.51)		4.17		2.77	2.77		4.17		2.77	(3.51)		4.17
2550			2970	2020	2970	2020	0.5 m		2.77	(3.51)		4.17		2.77	2.77		4.17		2.77	(3.51)		4.17
2700			3240	2120	3240	2120	0.5 m		3.51	3.51				3.51	3.51				3.51	3.51	-	
2850			3470	2220	3470	2220	0.5 m		3.51	3.51				3.51	3.51				3.51	3.51		
3000			3600	2320	3600	2320	0.5 m		4.27	4.27				4.27	4.27				4.27	4.27		

#### Notes:

The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 290 kN per square meter.

The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 192 kN per square meter. This minimum bearing capacity will be determined by the Engineer in the field.

<sup>\*</sup> Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 1060 mm according to Article 1006.01.

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.

					CONCRETE ELLI ROUND SIZE OI						
	FOR II	IL KLOFI	CIIVE EQ	UIVALEINI	ROUND SIZE OF	FIFE AND	FILL HEIGI	II 3 OVER	THE TOP C	/r	
	Doint	orced				Тур	ne 1	Тур	e 2	Тур	e 3
Equivalent Round Size (in.)	Cond	crete al pipe	_	orced crete pe (in.)	Minimum Cover		eight: nd less	Greater th	eight: han 3' not ling 10'	Fill H Greater th exceed	
	Span	Rise	Span	Rise	RCCP HE & A	HE	Arch	HE	Arch	HE	Arch
15	23	14	18	11	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
18	23	14	22	13 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
21	30	19	26	15 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
24	30	19	28 1/2	18	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
27	34	22	36 1/4	22 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
30	38	24	36 1/4	22 1/2	1' -0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
36	45	29	43 3/4	26 5/8	1' -0"	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
42	53	34	51 1/8	31 5/16	1' -0"	HE-I	A-II	HE-III	A-III	HE-IV	A-IV
48	60	38	58 1/2	36	1' -0"	HE-I	A-II	HE-III	A-III	1460	1450
54	68	43	65	40	1' -0"	HE-I	A-II	HE-III	A-III	1460	1460
60	76	48	73	45	1' -0"	HE-I	A-II	HE-III	A-III	1460	1470
66	83	53	88	54	1' -0"	HE-I	A-II	HE-III	A-III	1470	1480
72	91	58	88	54	1' -0"	HE-I	A-II	HE-III	A-III	1470	1480

#### Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.

Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

# Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICALL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)

						Тур	ne 1	Тур	e 2	Тур	e 3
Equivalent Round Size (mm)	Cor	nforced ncrete pipe (mm)	Cond	orced crete pe (mm)	Minimum Cover		eight: nd less	Fill He Greater tha exceedi	an 1 m not	Greater th	eight: an 3 m not ng 4.5 m
	Span	Rise	Span	Rise	RCCP HE & A	HE	Arch	HE	Arch	HE	Arch
375	584	356	457	279	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
450	584	356	559	343	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
525	762	483	660	394	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
600	762	483	724	457	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
686	864	559	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
750	965	610	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
900	1143	737	1111	676	0.3 m	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
1050	1346	864	1299	795	0.3 m	HE-I	A-II	HE-III	A-III	HE-IV	A-IV
1200	1524	965	1486	914	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1350	1727	1092	1651	1016	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1500	1930	1219	1854	1143	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1676	2108	1346	2235	1372	0.3 m	HE-I	A-II	HE-III	A-III	70	70
1800	2311	1473	2235	1372	0.3 m	HE-I	A-II	HE-III	A-III	70	70

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required. Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

#### TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

			Type 1					Type 2					Type 3				Тур	e 4	
Nominal Diameter		Fill Heig w	ht: 3' a ith 1' m		i	I	Fill Height: not e	Greate xceedin		3',	F	ill Height: not e	Greater exceeding		,		eight: Gr not exce		
(in.)	PVC CPVC PE CPE CPP PVC CPVC P  X X X X X NA X X								CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPP
10	Х	Х	Х	Х	NA	Χ	Х	Х	Х	NA	Х	Х	Х	Х	NA	Χ	Х	Х	NA
12	Χ	X	X	X	X	X	X	X	X	Χ	Х	X	Χ	NA	X	X	X	X	NA
15	Χ	Х	NA	Х	Х	Х	Χ	NA	Х	Х	Х	Х	NA	NA	Х	Х	Х	NA	Х
18	Χ	X	X	Х	Х	Х	Χ	Х	Х	X	Х	X	X	NA	Х	Х	Х	Х	NA
21	Χ	X	NA	NA	NA	Х	Χ	NA	NA	NA	Х	Х	NA	NA	NA	Х	X	NA	NA
24	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Χ	Х	Х	NA	NA	NA	X	Х	Х	NA
30	Χ	Х	X	Х	Х	Х	Х	Х	Х	Χ	Х	X	Χ	NA	Х	Х	X	Х	NA
36	Χ	X	Χ	X	Х	X	Χ	X	Х	Χ	Х	Х	Χ	NA	NA	Х	X	Х	NA
42	Х	NA	X	Х	NA	Х	NA	Х	NA	NA	Х	NA	Х	NA	NA	Х	NA	Х	NA
48	Χ	NA	X	Х	Х	Х	NA	Х	NA	NA	Х	NA	Χ	NA	NA	Х	NA	Х	NA

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior

PE Polyethylene (PE) pipe with a smooth interior
CPE Corrugated Polyethylene (PE) pipe with a smooth interior Corrugated Polypropylene (CPP) pipe with a smooth interior

This material may be used for the given pipe diameter and fill height Χ

Not Available NA

											PERMIT								
					FOR A	GIVEN F	PIPE DIA	METER /		.L HEIGH etric)	HT OVER	THE TO	P OF T	HE PIPE					
			Type 1					Type 2					Type 3				Туре	e 4	
Nominal		Fill Heigh			3,	Fi	II Height:			n,	Fi	II Height:			m,		eight: Gre		
Diameter		with 0.	3 m mir	n. cover			not e	xceeding	3 m			not ex	ceeding	4.5 m		m,	not exce	eding 6	m
(mm)	(mm) PVC CPVC PE CPE CPP PVC CPVC PE CPE CPP PVC CPVC PE CPE CPP PVC CPVC PE CPP PVC CPVC PE CPP													CPP					
250	250 X X X NA X X X NA X X X NA X X X NA X X NA X X NA																		
300	Х	Х	Χ	X	Х	Х	Х	Х	Χ	Х	Х	Х	Χ	NA	Х	X	Х	Χ	NA
375	Х	Х	NA	Х	Х	Х	Х	NA	Х	Х	Х	Х	NA	NA	Х	Х	Х	NA	Х
450	Х	Х	X	X	Х	Х	Х	Х	Х	Х	Х	Х	X	NA	Х	Х	Х	X	NA
525	Х	Χ	NA	NA	NA	Χ	Χ	NA	NA	NA	Χ	X	NA	NA	NA	Х	X	NA	NA
600	Х	Х	Х	Х	Χ	Х	Х	Χ	X	Χ	Х	Х	NA	NA	NA	Х	Х	X	NA
750	Х	Х	X	X	Х	Х	Х	Х	Х	Х	Х	Х	X	NA	Х	Х	Х	X	NA
900	Х	Χ	Х	Х	Χ	Χ	Χ	Χ	X	Χ	Х	Х	X	NA	NA	X	Х	X	NA
1000	Х	NA	X	Х	NA	Х	NA	Х	NA	NA	Х	NA	X	NA	NA	Х	NA	X	NA
1200	Х	NA	Х	Х	Х	Х	NA	Х	NA	NA	Х	NA	X	NA	NA	Х	NA	X	NA

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior

CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior

PE Polyethylene (PE) pipe with a smooth interior

CPE Corrugated Polyethylene (PE) pipe with a smooth interior
CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height

NA Not Available

	TABLE IIIB: PLASTIC PIPE PERMITTED												
			FOR A GIVEN PIPE D	IAMETER AND	FILL HEIGHT	OVER THE TOP OF	THE PIPE						
		Туре	5		Type 6			Type 7					
Nominal Diameter	Fill Height:	Greater than	20', not exceeding 25'	Fill Height: G	reater than 25	', not exceeding 30'	Fill Height: Greater than 30', not exceeding 35'						
(in.)	PVC	CPVC		PVC	CPVC		CPVC						
10 12	X X	X		X	X		X						
15 18 21	X X X	X X X		X X X	X X X		X X X						
24 30 36	X X X	X X X		X X X	X X X		X X X						
42 48	X X	NA NA		X X	NA NA		NA NA						

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height

NA Not Available

	TABLE IIIB: PLASTIC PIPE PERMITTED  FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE  (metric)												
Type 5         Type 6         Type 7													
Nominal Diameter	Fill Height: Gr	reater than 6 m	n, not exceeding 7.5 m	Fill Height: Gr	eater than 7.5	m, not exceeding 9 m	Fill Height: Gr	reater than 9 m, not exceeding 10.5 m					
(mm)	PVC	CPVC		PVC	CPVC		CPVC						
250	X	X		X	X		X						
300	Х	X		Х	X		X						
375	X	X		Χ	X		X						
450	Χ	X		Χ	X		X						
525	X	X		X	X		X						
600	Х	X		X	Х		X						
750	Х	X		Х	X		Х						
900	X	X		X	X		X						
1000	Х	NA		X	NA		NA						
1200	Х	NA		Χ	NA		NA						

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior Pel Polyethylene (PE) pipe with a smooth interior This material may be used for the given pipe diameter and fill height NA Not Available"

Revise the first sentence of the first paragraph of Article 542.04(c) of the Standard Specifications to read:

"Compacted aggregate, at least 4 in. (100 mm) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except compacted impervious material shall be used for the outer 3 ft (1 m) at each end of the pipe culvert."

Revise the seventh paragraph of Article 542.04(d) of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Replace the third sentence of the first paragraph of Article 542.04(h) of the Standard Specifications with the following:

"The total cover required for various construction loadings shall be the responsibility of the Contractor."

Delete "Table IV : Wheel Loads and Total Cover" in Article 542.04(h) of the Standard Specifications.

Revise the first and second paragraphs of Article 542.04(i) of the Standard Specifications to read:

"(i) Deflection Testing for Pipe Culverts. All PE, PVC and CPP pipe culverts shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP pipe culverts with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP pipe culverts with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise Articles 542.04(i)(1) and (2) of the Standard Specifications to read:

- "(1) For all PVC pipe: as defined using ASTM D 3034 methodology.
- (2) For all PE and CPP pipe: the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the second sentence of the second paragraph of Article 542.07 of the Standard Specifications to read:

"When a prefabricated end section is used, it shall be of the same material as the pipe culvert, except for polyethylene (PE), polyvinylchloride (PVC), and polypropylene (PP) pipes which shall have metal end sections."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

- "(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.
- (d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

- "1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.
  - (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
  - (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

# LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013 Revised: April 1,

2015

Revise Article 550.02 of the Standard Specifications to read as follows:

"Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note	e 1)1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.08
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(I) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

- Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.
- Note 2. The fine aggregate shall be moist.
- Note 3. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
Α	Rigid Pipes:
	Clay Sewer Pipe
	Extra Strength Clay Pipe
	Concrete Sewer, Storm Drain, and Culvert Pipe
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
В	Rigid Pipes:
	Clay Sewer Pipe
	Extra Strength Clay Pipe
	Concrete Sewer, Storm Drain, and Culvert Pipe
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
	Flexible Pipes:
	Polyvinyl Chloride (PVC) Pipe
	Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior
	Polyethylene (PE) Pipe with a Smooth Interior
	Corrugated Polyethylene (PE) Pipe with a Smooth Interior
	Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

	STORM SEWERS															
				KIN	ND OF MA	TEDIAI				TH PEOL	IIDED					
			FOR									PIPE				
			1 011			WILLER	0711101	ILL TILIC	SHTS OVER THE TOP OF THE PIPE							
				Туре					Type 2							
Nominal	Fill Height: 3' and less												eater than	3'		
Diameter in.			With	n 1' minin	num cover				not exceeding 10'							
111.	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	Х	Х	Х	Х	Х	NA	NA	1	*X	Х	Х	Х	Х	NA
12	IV	NA	Χ	Х	Х	Х	Х	Х	II	1	*X	Х	Х	Х	Х	Х
15	IV	NA	NA	X	Χ	NA	Х	Х	II	1	*X	Х	Х	NA	Х	Х
18	IV	NA	NA	Х	Х	Х	Х	Х	II	2	Х	Х	Х	Х	Х	Х
21	III	NA	NA	Х	Х	NA	NA	NA	II	2	Х	Х	Х	NA	NA	NA
24	III	NA	NA	Χ	Χ	X	Х	Х	II	2	Х	Х	Х	Х	Х	Х
27	III	NA	NA	NA	NA	NA	NA	NA	II	3	Х	NA	NA	NA	NA	NA
30	IV	NA	NA	X	Х	Х	Х	Х	II	3	Х	Х	Х	Х	Х	Х
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	Х	NA	NA	NA	NA	NA
36	Ш	NA	NA	Х	X	X	X	Х	II	NA	X	X	X	Х	X	Х
42	II	NA	X	Х	NA	X	X	NA	II.	NA	X	X	NA	X	NA	NA
48	II .	NA	Х	Х	NA	Х	Х	Х	ll .	NA	Х	X	NA	Х	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	II.	NA	NA	NA	NA	NA	NA	NA
60	II II	NA	NA	NA	NA	NA	NA	X	II 	NA	NA	NA	NA	NA	NA	X
66	II	NA	NA	NA	NA	NA	NA	NA	II 	NA	NA	NA	NA	NA	NA	NA
72 70	II I	NA	NA	NA	NA	NA	NA	NA	II.	NA	NA	NA	NA	NA	NA	NA
78	II II	NA	NA	NA	NA	NA	NA	NA	II.	NA	NA	NA	NA	NA	NA	NA
84	II II	NA NA	NA	NA	NA NA	NA	NA	NA	II II	NA NA	NA	NA NA	NA	NA	NA	NA
90 96	II II	NA	NA	NA	NA	NA	NA	NA NA	II III	NA NA	NA	NA	NA	NA	NA	NA
96 102		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	 	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
102		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
106	II.	INA	INA	INA	INA	INA	Avi	NA	111	INA	INA	NA	INA	NA	INA	INA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior CPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.
 NA This material is Not Acceptable for the given pipe diameter and fill height.

\* May also use Standard Strength Clay Pipe

	STORM SEWERS (Metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED															
						ATERIAL	PERMI	TTED AN	Ď STRÉN							
			FO	R A GIVE	N PIPE D	IAMETE	RS AND	FILL HEI	IGHTS OVER THE TOP OF THE PIPE							
				Туре	: 1							Тур	e 2			
Nominal	Fill Height: 1 m and less										Fill H	leight: Gre	eater than	1 m		
Diameter					inimum co							not excee				
in.	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
		CSP	ESCP	PVC	CPVC	PE	CPE	CPP		CSP		PVC	CPVC	PE	CPE	- · ·
250	NA	3	Х	Х	Х	Х	Х	NA	NA	1	*X	Х	Х	Х	Х	NA
300	IV	NA	X	X	X	Х	X	X	ll II	1	*X	X	X	Х	X	X
375	IV	NA	NA	Х	X	NA	Х	Х	II	1	*X	Х	Х	NA	X	Χ
450	IV	NA	NA	Х	Χ	Х	Х	Х	II	2	Х	Х	Х	Х	Х	Х
525	III	NA	NA	Х	Х	NA	NA	NA	II	2	Х	Х	Х	NA	NA	NA
600	Ш	NA	NA	X	Х	Х	Х	Х	II	2	Х	Х	Х	Х	Х	X
675	III	NA	NA	NA	NA	NA	NA	NA	II	3	Х	NA	NA	NA	NA	NA
750	IV	NA	NA	Х	Х	Х	Х	Х	II	3	Х	Х	Х	X	Х	Х
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	Χ	NA	NA	NA	NA	NA
900	III	NA	NA	Х	Х	Х	Х	Х	II	NA	Х	Х	Х	X	Х	Х
1050	II	NA	Х	Х	NA	Х	X	NA	II	NA	Х	Х	NA	X	NA	NA
1200	Ш	NA	Χ	Х	NA	Χ	Χ	Х	II	NA	X	Χ	NA	Х	NA	NA
1350	=	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	Х	II	NA	NA	NA	NA	NA	NA	X
1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	Ш	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior CPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

\* May also use Standard Strength Clay Pipe

						IAL PER		AND ST	RENGTH F						
			FOR A G	Type		IERS AN	ND FILL I	HEIGHTS	S OVER THE TOP OF THE PIPE  Type 4						
Nominal Diameter in.				7.	ater than 1	10'					Fill Height not e	, , , , , , , , , , , , , , , , , , ,			
111.	RCCP CSP ESCP PVC CPVC PE CPE CPP								RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
10	NA	2	Х	Х	Х	Х	Х	NA	NA	3	Х	Х	Х	Х	NA
12	III	2	Х	Х	Χ	X	NA	Х	IV	NA	NA	Х	Х	X	NA
15	III	3	Х	Х	Χ	NA	NA	Х	IV	NA	NA	Х	Х	NA	Х
18	III	NA	Х	Х	Χ	Х	NA	Х	IV	NA	NA	Х	Х	Х	NA
21	III	NA	NA	X	Χ	NA	NA	NA	IV	NA	NA	Х	Х	NA	NA
24	Ш	NA	NA	Х	Х	Х	NA	NA	IV	NA	NA	Х	X	Χ	NA
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
30	III	NA	NA	X	Χ	X	NA	Х	IV	NA	NA	Х	Х	X	NA
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
36	III	NA	NA	X	Х	X	NA	NA	IV	NA	NA	Х	X	Χ	NA
42	Ш	NA	NA	Х	NA	Х	NA	NA	IV	NA	NA	Х	NA	X	NA
48	III	NA	NA	Χ	NA	Χ	NA	NA	IV	NA	NA	Χ	NA	Χ	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA
96	Ш	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA
108	1360	NA Taka Culu	NA	NA	NA d Causair D	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior CPP Corrugated Polypropylene pipe with a Smooth linterior

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in

crack.

	STORM SEWERS (metric)  KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED  FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE														
			FOR A GI	VEN PIPE	DIAMETE	ERS AND	FILL HE	IGHTS (	OVER THE	TOP OF	THE PIPE				
				Type	3				Type 4						
Nominal Diameter in.				ght: Grea t exceedir	ter than 3 ig 4.5 m	m			Fill Height: Greater than 4.5 m not exceeding 6 m						
ın.	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
250	NA	2	Х	Х	Х	Х	Х	NA	NA	3	Х	Х	Х	Х	NA
300	III	2	Χ	Χ	Χ	Χ	NA	Χ	IV	NA	NA	Х	Χ	Χ	NA
375	III	3	X	Χ	X	NA	NA	X	IV	NA	NA	Х	X	NA	X
450	III	NA	Х	Χ	Х	Χ	NA	Χ	IV	NA	NA	Х	Х	Х	NA
525	III	NA	NA	Χ	Χ	NA	NA	NA	IV	NA	NA	Х	X	NA	NA
600	III	NA	NA	Χ	X	X	NA	NA	IV	NA	NA	Х	X	Χ	NA
675	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
750	III	NA	NA	Χ	Χ	Χ	NA	Χ	IV	NA	NA	Х	X	Χ	NA
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
900	III	NA	NA	Х	Х	Х	NA	NA	IV	NA	NA	Х	Х	Χ	NA
1050	III	NA	NA	Χ	NA	X	NA	NA	IV	NA	NA	Х	NA	Χ	NA
1200	III	NA	NA	Χ	NA	X	NA	NA	IV	NA	NA	Х	NA	Χ	NA
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1500	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Interior
X This material may be used for the given pipe diameter and fill height.

X This material may be used for the given pipe diameter and fill height.
NA This material is Not Acceptable for the given pipe diameter and fill height.

\* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4

micro-meter crack.

#### STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

		Type 5			Type 6		Type 7		
Nominal Diameter in.	Fill Height not e	Greater xceeding			nt: Greate exceeding		Fill Height: Greater than 30' not exceeding 35'		
"".	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC	
10	NA	Х	Х	NA	Х	Х	NA	Х	
12	IV	Χ	Χ	V	Х	X	V	X	
15	IV	Χ	Χ	V	Х	X	V	X	
18	IV	Χ	Χ	V	Χ	X	V	X	
21	IV	Χ	Χ	V	Х	X	V	X	
24	IV	Χ	Χ	V	Χ	X	V	X	
27	IV	NA	NA	V	NA	NA	V	NA	
30	IV	Χ	Χ	V	Χ	X	V	X	
33	IV	NA	NA	V	NA	NA	V	NA	
36	IV	Χ	Χ	V	Х	X	V	X	
42	IV	Χ	NA	V	Χ	NA	V	NA	
48	IV	Χ	NA	V	Χ	NA	V	NA	
54	IV	NA	NA	V	NA	NA	V	NA	
60	IV	NA	NA	V	NA	NA	V	NA	
66	IV	NA	NA	V	NA	NA	V	NA	
72	V	NA	NA	V	NA	NA	V	NA	
78	2020	NA	NA	2370	NA	NA	2730	NA	
84	2020	NA	NA	2380	NA	NA	2740	NA	
90	2030	NA	NA	2390	NA	NA	2750	NA	
96	2040	NA	NA	2400	NA	NA	2750	NA	
102	2050	NA	NA	2410	NA	NA	2760	NA	
108	2060	NA	NA	2410	NA	NA	2770	NA	

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

This material may be used for the given pipe diameter and fill height. Χ

This material is Not Acceptable for the given pipe diameter and fill height. NA

RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in Note

crack.

#### STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

		Type 5			Type 6		Type 7		
Nominal Diameter in.	Fill Height not e	: Greater xceeding 2			nt: Greater exceeding		Fill Height: Greater than 30' not exceeding 35'		
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC	
250	NA	Х	Х	NA	Х	Х	NA	Х	
300	IV	X	X	V	X	X	V	X	
375	IV	Χ	Χ	V	X	X	V	X	
450	IV	Х	Х	V	Х	X	V	Х	
525	IV	Х	Х	V	X	X	V	X	
600	IV	X	X	V	X	X	V	X	
675	IV	NA	NA	V	NA	NA	V	NA	
750	IV	Х	Х	V	X	X	V	X	
825	IV	NA	NA	V	NA	NA	V	NA	
900	IV	Х	Х	V	Х	Х	V	X	
1050	IV	Х	NA	V	X	NA	V	NA	
1200	IV	Х	NA	V	X	NA	V	NA	
1350	IV	NA	NA	V	NA	NA	V	NA	
1500	IV	NA	NA	V	NA	NA	V	NA	
1650	IV	NA	NA	V	NA	NA	V	NA	
1800	V	NA	NA	V	NA	NA	V	NA	
1950	100	NA	NA	110	NA	NA	130	NA	
2100	100	NA	NA	110	NA	NA	130	NA	
2250	100	NA	NA	110	NA	NA	130	NA	
2400	100	NA	NA	120	NA	NA	130	NA	
2550	100	NA	NA	120	NA	NA	130	NA	
2700	100	NA	NA	120	NA	NA	130	NA	

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

Χ NA

This material may be used for the given pipe diameter and fill height.

This material is Not Acceptable for the given pipe diameter and fill height.

RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a Note

25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

"550.08 Deflection Testing for Storm Sewers. All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise the fifth paragraph of Article 550.08 to read as follows.

"The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

- "(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.
- (d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

"1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

#### **MECHANICAL SIDE TIE BAR INSERTER (BDE)**

Effective: August 1, 2014 Revised: January 1, 2015

Add the following to Article 420.03 of the Standard Specifications:

"(k) Mechanical Side Tie Bar Inserters ......1103.18"

Revise Article 420.05(b) of the Standard Specifications to read:

- "(b) Longitudinal Construction Joint. The tie bars shall be installed using one of the following methods.
  - (1) Preformed or Drilled Holes. The tie bars shall be installed with an approved nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows.

Bar Size	Minimum Pull-Out Strength
No. 6 (No. 19)	11,000 lb (49 kN)
No. 8 (No. 25)	19,750 lb (88 kN)

Holes shall be blown clean and dry prior to placing the grout or adhesive. If compressed air is used, the pneumatic tool lubricator shall be bypassed and a filter installed on the discharge valve to keep water and oil out of the lines. The installation shall be with methods and tools conforming to the grout or adhesive manufacturer's recommendations.

The Contractor shall load test five percent of the first 500 tie bars installed. No further installation will be allowed until the initial five percent testing has been completed and approval to continue installation has been given by the Engineer. Testing will be required for 0.5 percent of the bars installed after the initial 500. For each bar that fails to pass the minimum requirements, two more bars selected by the Engineer shall be tested. Each bar that fails to meet the minimum load requirement shall be reinstalled and retested. The equipment and method used for testing shall meet the requirements of ASTM E 488. All tests shall be performed within 72 hours of installation. The tie bars shall be installed and approved before concrete is placed in the adjacent lane."

(2) Inserted. The tie bars shall be installed with the use of a mechanical side tie bar inserter. The inserter shall insert the tie bars with vibration while still within the extrusion process, after the concrete has been struck off and consolidated without deformation of the slab. The inserter shall remain stationary relative to the pavement when inserting tie bars, while the formless paver continues to move in the direction of paving.

A void greater than 1/8 in. (3 mm) at any location around the tie bar shall require immediate adjustment of the paving operation. A void greater than 1/2 in.(13 mm) shall be repaired with a nonshrink grout or chemical adhesive after the concrete has hardened. If at the end of the day of paving more than 20 percent of the tie bars show a void larger than 1/8 in. (3 mm) at any point around the bar, the use of the side tie bar inserter shall be discontinued.

(3) Formed in Place. The tie bar shall be formed in place as shown on the plans.

The sealant reservoir shall be formed either by sawing after the concrete has set according to Article 420.05(a) or by hand tools when the concrete is in a plastic state."

Add the following to Section 1103 of the Standard Specifications:

"1103.18 Mechanical Side Bar Inserters. The mechanical side tie bar inserter shall be self-contained and supported on the formless paver with the ability to move independently from the formless paver. The insertion apparatus shall vibrate within a frequency of 2000 to 6000 vpm. A vibrating reed tachometer, hand type, shall be provided according to Article 1103.12."

#### PAVED SHOULDER REMOVAL (BDE)

Effective: April 1, 2014

Revise the first paragraph of Article 440.07(b) of the Standard Specifications to read:

"(b) Measured Quantities. Pavement removal, driveway pavement removal, and paved shoulder removal will be measured for payment in place and the area computed in square yards (square meters)."

Revise Article 440.07(c) of the Standard Specifications to read:

"(c) Adjustment of Quantities. The quantity of pavement removal and paved shoulder removal will be adjusted if their respective thickness varies more than 15 percent from that shown on the plans. The quantity will be either increased or decreased according to the following table.

% change of thickness	% change of quantity
0 to less than 15	0
15 to less than 20	10
20 to less than 30	15
30 to less than 50	20

If the thickness of the existing pavement varies by 50 percent or more from that shown on the plans, the character of the work will be considered significantly changed and an adjustment to the contract will be made according to Article 104.02.

When an adjustment is made for variations in pavement or shoulder thickness a resulting adjustment will also be made in the earthwork quantities when applicable.

No adjustment will be made for variations in the amount of reinforcement."

#### **PAVEMENT PATCHING (BDE)**

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

#### **PAVEMENT STRIPING - SYMBOLS (BDE)**

Effective: January 1, 2015

Revise the Symbol Table of Article 780.14 of the Supplemental Specifications to read:

#### "SYMBOLS

	ı	ı
Symbol	Large Size	Small Size
	sq ft (sq m)	sq ft (sq m)
Through Arrow	11.5 (1.07)	6.5 (0.60)
Left or Right Arrow	15.6 (1.47)	8.8 (0.82)
2 Arrow Combination Left (or Right) and Through	26.0 (2.42)	14.7 (1.37)
3 Arrow Combination Left, Right, and Through	38.4 (3.56)	20.9 (1.94)
Lane Drop Arrow	41.5 (3.86)	
Wrong Way Arrow	24.3 (2.26)	
Railroad "R" 6 ft (1.8 m)	3.6 (0.33)	
Railroad "X" 20 ft (6.1 m)	54.0 (5.02)	
International Symbol of Accessibility	3.1 (0.29)	
Bike Symbol	4.7 (0.44)	
Shared Lane Symbol	8.0 (0.74)	"

#### PRECAST CONCRETE HANDHOLE (BDE)

Effective: August 1, 2014

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place, composite concrete, or precast units. Heavy duty handholes shall be either cast-in-place or precast units."

Add the following to Article 814.03 of the Standard Specifications:

"(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk."

Add the following to Section1042 of the Standard Specifications:

"1042.17 Precast Concrete Handholes. Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e)."

#### PREFORMED PLASTIC PAVEMENT MARKING TYPE D - INLAID (BDE)

Effective: April 1, 2012

Revise subparagraph (c) and add subparagraph (i) to Article 780.02 of the Standard Specifications:

Revise the first paragraph of Article 780.07(a) of the Standard Specifications to read:

"(a) Type B or D - Inlaid Application. On freshly placed HMA, the inlaid markings shall be applied before final compaction and when the pavement temperature has cooled to approximately 150 °F (65 °C) and when, in the opinion of the Engineer, the pavement is acceptable for vehicular traffic."

Revise the first paragraph of Article 780.11 of the Standard Specifications to read:

"780.11 Inspection. The epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B, C, or D, and polyurea pavement markings will be inspected following installation, but no later than October 15 for preformed plastic markings, November 1 for thermoplastic and preformed thermoplastic markings, and December 15 for epoxy and polyurea markings. In addition, they will be inspected following a winter performance period that extends 180 days from November 1."

Revise the ninth paragraph of Article 780.11 of the Standard Specifications to read:

"This performance inspection and performance acceptance of the epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B, C, or D, and polyurea markings shall not delay acceptance of the entire project and final payment due if the Contractor requires and receives from the subcontractor a third party "performance" bond naming the Department as obligee in the full amount of all pavement marking quantities listed in the contract, multiplied by the contract unit price. The bond shall be executed prior to acceptance and final payment of the non-pavement marking items and shall be in full force and effect until final performance inspection and performance acceptance of the epoxy, thermoplastic, preformed thermoplastic, preformed plastic, and polyurea pavement markings. Execution of the third party bond shall be the option of the Contractor."

Revise the first paragraph of Article 780.13 of the Standard Specifications to read:

"780.13 Basis of Payment. This work will be paid for at the contract unit prices per foot (meter) of applied line width, as specified, for THERMOPLASTIC PAVEMENT MARKING - LINE; PAINT PAVEMENT MARKING - LINE; EPOXY PAVEMENT MARKING - LINE; PREFORMED PLASTIC PAVEMENT MARKING - LINE - TYPE B, C, B - INLAID, or D - INLAID; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LINE, POLYUREA PAVEMENT MARKING TYPE II - LINE, POLYUREA PAVEMENT MARKING TYPE II - LINE; and/or per square foot (square meter) for THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS; EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS; PREFORMED PLASTIC PAVEMENT MARKING - TYPE B, C, B - INLAID, or D - INLAID - LETTERS AND SYMBOLS; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS."

Add the following to Section 1095 of the Standard Specifications:

"1095.10 Preformed Plastic Pavement Marking, Type D. The preformed patterned markings shall consist of a white or yellow tape with wet retroreflective media incorporated to provide immediate and continuing retroreflection during both wet and dry conditions. The pavement marking shall be manufactured without the use of heavy metals including lead chromate pigments or other similar, lead-containing chemicals.

The white and yellow preformed plastic pavement markings shall meet the Type B requirements of Article 1095.03(b), (c), (d), (e), (i), (l), (m), (n) and the following.

- (a) Composition. The pliant polymer pavement markings shall consist of a mixture of high-quality polymeric materials, pigments and glass beads distributed throughout its base cross-sectional area, with a layer of wet retroreflective media bonded to a durable polyurethane topcoat surface. The patterned surface shall have approximately 40% ± 10% of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed beads or particles.
- (b) Retroreflectance. The white and yellow markings shall meet the following for initial dry and wet retroreflectance.
  - (1) Dry Retroreflectance. Dry retroreflectance shall be measured under dry conditions according to ASTM D4061 and meet the values described in Article 1095.03(I) for Type B.
  - (2) Wet Retroreflectance. Wet retroreflectance shall be measured under wet conditions according to ASTM E2177 and meet the values shown in the following table.

Wet Retroreflectance. Initial R

Color	R <sub>L</sub> 1.05/88.76
White	300
Yellow	200

(c) Color. The material shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and a two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 minimum
*Yellow	36-59

\*Shall match Federal 595 Color No. 33538 and the chromaticity limits as follows.

Х	0.490	0.475	0.485	0.530
У	0.470	0.438	0.425	0.456

(d) Sampling, Testing, Acceptance, and Certification. Prior to approval and use of the preformed pavement marking materials, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, and date of manufacture.

After approval by the Department, samples and certification by the manufacturer shall be submitted for each batch used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, manufacturer's name, and date of manufacture."

#### PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

#### RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: January 2, 2015

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

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

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing 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.

- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
  - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
  - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

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

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. 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 provide documentation on the quality of the RAP to clarify the appropriate stockpile.

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

	T =
Mixture FRAP will be used in:	Sieve Size that 100% of FRAP
	Shall Pass
IL-25.0	2 in. (50 mm)
IL-19.0	1 1/2 in. (40 mm)
IL-12.5	1 in. (25 mm)
IL-9.5	3/4 in. (20 mm)
IL-4.75	1/2 in. (13 mm)

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) 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.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) 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.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP 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.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

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

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

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.
  - (1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
  - (2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

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

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

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

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

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

(a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G<sub>mm</sub>. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/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 µm)	± 5 %	
No. 200 (75 µm)	± 2.0 %	± 4.0 %
Asphalt Binder	$\pm$ 0.4 % $^{1/}$	± 0.5 %
G <sub>mm</sub>	± 0.03	

1/ The tolerance for FRAP shall be  $\pm$  0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP 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)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

#### 1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
  - (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
  - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
  - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
  - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

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

- (a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.
  - (1) 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.
  - (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
  - (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.
  - (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
  - (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
  - (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
  - (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

#### RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/, 2/	RAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the RAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS table listed below for the given N design.

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HMA Mixtures	FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/, 4/
30	50	40	10
50	40	35	10
70	40	30	10
90	40	30	10
105	40	30	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

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

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP 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/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

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

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP 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, gator, 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/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.
- (c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.
  - (1) Dryer Drum Plants.
    - a. Date, month, year, and time to the nearest minute for each print.
    - b. HMA mix number assigned by the Department.
    - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
    - d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
    - e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
    - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

- g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

#### (2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- e. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- f. Virgin asphalt binder weight to the nearest pound (kilogram).
- g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

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

**1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders.** The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders Type B shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 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."

#### RETROREFLECTIVE SHEETING FOR HIGHWAY SIGNS (BDE)

Effective: November 1, 2014

Revise the first sentence of the first paragraph of Article 1091.03(a)(3) of the Standard Specifications to read:

"When tested according to ASTM E 810, with averaging, the sheeting shall have a minimum coefficient of retroreflection as show in the following tables."

Replace the Tables for Type AA sheeting, Type AP sheeting, Type AZ sheeting and Type ZZ sheeting in Article 1091.03(a)(3) with the following.

# Type AA Sheeting Minimum Coefficient of Retroreflection Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AA (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FO
0.2	-4	800	600	120	80	40	200
0.2	+30	400	300	60	35	20	100
0.5	-4	200	150	30	20	10	75
0.5	+30	100	75	15	10	5	35

Type AA (45 degree rotation)

Type AA (45 degree rotation)						
Observation Angle	Entrance Angle	Yellow	FO			
(deg.)	(deg.)					
0.2	-4	500	165			
0.2	+30	115	40			
0.5	-4	140	65			
0.5	+30	60	30			

# Type AP Sheeting Minimum Coefficient of Retroreflection Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AP (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	Brown	FO
0.2	-4	500	380	75	55	35	25	150
0.2	+30	180	135	30	20	15	10	55
0.5	-4	300	225	50	30	20	15	90
0.5	+30	90	70	15	10	7.5	5	30

## Type AZ Sheeting Minimum Coefficient of Retroreflection Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AZ (Average of 0 and 90 degree rotation)

Type AZ (Average of a and 30 degree rotation)								
Observation Angle	Entrance Angle	White	Yellow	Red	Green	Blue	FYG	FY
(deg.)	(deg.)							
0.2	-4	375	280	75	45	25	300	230
0.2	+30	235	170	40	25	15	190	150
0.5	-4	245	180	50	30	20	200	155
0.5	+30	135	100	25	15	10	100	75
1.0	-4	50	37.5	8.5	5	2	45	25
1.0	+30	22.5	20	5	3	1	25	12.5

# Type ZZ Sheeting Minimum Coefficient of Retroreflection Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type ZZ (Average of 0 and 90 degree rotation)

Type ZZ (Average of 6 and 90 degree rotation)									
Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY	FO
0.2	-4	570	425	90	60	30	460	340	170
0.2	+30	190	140	35	20	10	150	110	65
0.5	-4	400	300	60	40	20	320	240	120
0.5	+30	130	95	20	15	7	100	80	45
1.0	-4	115	90	17	12	5	95	70	35
1.0	+30	45	35	7	5	2	35	25	15

#### REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

"508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted or precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum "Quality Control / Quality Assurance Program for Precast Concrete Products", and for precast prestressed concrete products as indicated in the Department's current "Manual for Fabrication of Precast Prestressed Concrete Products". Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage."

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

"Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of cold-drawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer."

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

"Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed."

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

"In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns)."

Revise Article 1042.03(d) of the Standard Specifications to read:

"(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within ±1/4 in. (±6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site."

#### SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)

Effective: January 1, 2015 Revised: April 1, 2015

Revise the first sentence of Article 1106.02(m) of the Supplemental Specifications to read:

"The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides."

#### **SPEED DISPLAY TRAILER (BDE)**

Effective: April 2, 2014

Add the following to Article 701.15(I) of the Standard Specifications:

"(I) Speed Display Trailer. A speed display trailer shall be utilized on freeways and expressways as part of Highway Standard 701400. The trailer shall be placed on the right hand side of the roadway adjacent to, or within 100 ft (30 m) beyond, the first work zone speed limit sign.

Whenever the speed display trailer is not in use, it shall be considered non-operating equipment and shall be stored according to Article 701.11."

Add the following to Article 701.20 of the Standard Specifications:

"(k) Speed Display Trailer will be paid for at the contract unit price per calendar month or fraction thereof for each trailer as SPEED DISPLAY TRAILER."

Add the following to Article 1106.02 of the Standard Specifications:

"(o) Speed Display Trailer. The speed display trailer shall consist of a LED speed indicator display with self-contained, one-direction radar mounted on an orange see-through trailer. The height of the display and radar shall be such that it will function and be visible when located behind concrete barrier.

The speed measurement shall be by radar and provide a minimum detection distance of 1000 ft (300 m). The radar shall have an accuracy of ±1 mile per hour.

The speed indicator display shall face approaching traffic and shall have a sign legend of "YOUR SPEED" immediately above or below the speed display. The digital speed display shall show two digits (00 to 99) in mph. The color of the changeable message legend shall be a yellow legend on a black background. The minimum height of the numerals shall be 18 in. (450 mm), and the nominal legibility distance shall be at least 750 ft (250 m).

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the posted limit is exceeded. The speed indicator shall have a maximum speed cutoff. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service."

#### TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

Add the following paragraph after the first paragraph of Article 107.23 of the Standard Specifications:

"Within 48 hours of the application of pesticides, including but not limited to herbicides, insecticides, algaecides, and fungicides, the Contractor shall complete and return to the Engineer, Operations form "OPER 2720"."

#### **URBAN HALF ROAD CLOSURE WITH MOUNTABLE MEDIAN (BDE)**

Effective: January 1, 2015

Revise the first paragraph of Article 701.18(j) of the Standard Specifications to read:

"Urban Traffic Control, Standards 701501, 701502, 701601, 701602, 701606, 701611, 701701, and 701801."

Revise Article 701.18(j)(3) of the Standard Specifications to read:

"(3)Standards 701606 and 701611. When Standards 701606 or 701611 are specified, reflective pavement markings shall be used when the closure time exceeds four days. The double yellow centerline shall be used in the two-way traffic area in addition to the barricades or drums. Single yellow left edge line shall be used to outline the barricade island. White right edge line shall be used along the barricades delineating the work area."

Revise the first sentence of Article 701.19(c) of the Standard Specifications to read:

"Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701406, 701421, 701451, 701456, 701501, 701502, 701601, 701602, 701606, 701611, 701701 and 701801 will be measured for payment on a lump sum basis."

Add the following to the first paragraph of Article 701.20(b) of the Standard Specifications:

"TRAFFIC CONTROL AND PROTECTION STANDARD 701611:"

#### WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: November 1, 2014

<u>Description</u>. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

#### Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"1102.01 Hot-Mix Asphalt Plant. The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

- "(13) Equipment for Warm Mix Technologies.
  - a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.
  - b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

#### Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

- "(e) Warm Mix Technologies.
  - (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
  - (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

#### Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

#### Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

#### **WEEKLY DBE TRUCKING REPORTS (BDE)**

Effective: June 2, 2012 Revised: April 2, 2015

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

#### **WORKING DAYS (BDE)**

Effective: January 1, 2002

The Contractor shall complete the work within **150** working days.

#### BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006 Revised: July 1, 2015

<u>Description</u>. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

 $CA = (BPI_P - BPI_L) x (%AC_V / 100) x Q$ 

Where: CA = Cost Adjustment, \$.

BPI<sub>P</sub> = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).

BPI<sub>L</sub> = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/ton (\$/metric ton).

 $^{\circ}$ AC $_{\vee}$  = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the  $^{\circ}$ AC $_{\vee}$  will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC $_{\vee}$  and undiluted emulsified asphalt will be considered to be 65% AC $_{\vee}$ .

Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x ( $G_{mb}$  x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x ( $G_{mb}$  x 1) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different  $G_{mb}$  and %  $AC_{V.}$ 

For bituminous materials measured in gallons: Q, tons =  $V \times 8.33$  lb/gal x SG / 2000 For bituminous materials measured in liters: Q, metric tons =  $V \times 1.0$  kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq vd (sq m).

D = Depth of the HMA mixture, in. (mm).

 $G_{mb}$  = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).

SG = Specific Gravity of bituminous material as shown on the bill of lading.

<u>Basis of Payment</u>. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI<sub>L</sub> and BPI<sub>P</sub> in excess of five percent, as calculated by:

Percent Difference =  $\{(BPI_1 - BPI_P) \div BPI_1\} \times 100$ 

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

#### **Return With Bid**

## ILLINOIS DEPARTMENT OF TRANSPORTATION

### OPTION FOR BITUMINOUS MATERIALS COST ADJUSTMENTS

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

Contract N	lo.:			
Company I	Name:			
<u>Contractor</u>	r's Option:			
ls your com	npany opting to inclu	ude this special provision	as part of the contract?	
	Yes	No 🗌		
Signature:			Date:	
ELIEL COS	T AD HISTMENT (	RDE) (PETLIEN FORM W	/ITH RID)	

#### FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009 Revised: July 1, 2015

<u>Description</u>. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

#### (b) Fuel Usage Factors.

English Units		
Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B – Subbase and Aggregate Base courses	0.62	gal / ton
C – HMA Bases, Pavements and Shoulders	1.05	gal / ton
D – PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E – Structures	8.00	gal / \$1000
Metric Units		
Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B – Subbase and Aggregate Base courses	2.58	liters / metric ton
C – HMA Bases, Pavements and Shoulders	4.37	liters / metric ton

D – PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E – Structures	30.28	liters / \$1000

#### (c) Quantity Conversion Factors.

Category	Conversion	Factor
В	sq yd to ton sq m to metric ton	0.057 ton / sq yd / in depth 0.00243 metric ton / sq m / mm depth
С	sq yd to ton sq m to metric ton	0.056 ton / sq yd / in depth 0.00239 m ton / sq m / mm depth
D	sq yd to cu yd sq m to cu m	0.028 cu yd / sq yd / in depth 0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$$CA = (FPI_P - FPI_L) \times FUF \times Q$$

Where: CA = Cost Adjustment, \$

FPI<sub>P</sub> = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)

FPI<sub>L</sub> = Fuel Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/gal (\$/liter)

FUF = Fuel Usage Factor in the pay item(s) being adjusted

Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

<u>Basis of Payment</u>. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the  $FPI_L$  and  $FPI_P$  in excess of five percent, as calculated by:

Percent Difference =  $\{(FPI_1 - FPI_P) \div FPI_1\} \times 100$ 

Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

#### **Return With Bid**

## ILLINOIS DEPARTMENT OF TRANSPORTATION

### OPTION FOR FUEL COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.:			
Company Name:			
Contractor's Option:			
Is your company opting to include this special provisio following categories of work?	n as pa	rt of the contract plans	for the
Category A Earthwork.	Yes		
Category B Subbases and Aggregate Base Courses	Yes		
Category C HMA Bases, Pavements and Shoulders	Yes		
Category D PCC Bases, Pavements and Shoulders	Yes		
Category E Structures	Yes		
Signature:		Date:	

#### STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004 Revised: July 1, 2015

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

SCA = Q X D

Where: SCA = steel cost adjustment, in dollars

Q = quantity of steel incorporated into the work, in lb (kg)

D = price factor, in dollars per lb (kg)

 $D = MPI_M - MPI_L$ 

Where: MPI<sub>M</sub> = The Materials Cost Index for steel as published by the Engineering News-

Record for the month the steel is shipped from the mill. The indices will be

converted from dollars per 100 lb to dollars per lb (kg).

MPI<sub>L</sub> = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $\mathsf{MPI}_\mathsf{M}$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the  $MPI_L$  and  $MPI_M$  in excess of five percent, as calculated by:

Percent Difference =  $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$ 

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

#### Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights
	(masses)
Reinforcing Steel	See plans for weights
	(masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m )	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	, , ,
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	. ,
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

#### **Return With Bid**

## ILLINOIS DEPARTMENT OF TRANSPORTATION

### OPTION FOR STEEL COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.:		
Company Name:		
Contractor's Option:		
Is your company opting to include this special provision a following items of work?	s part of the	contract plans for the
Metal Piling	Yes	
Structural Steel	Yes	
Reinforcing Steel	Yes	
Dowel Bars, Tie Bars and Mesh Reinforcement	Yes	
Guardrail	Yes	
Steel Traffic Signal and Light Poles, Towers and Mast Arms	Yes	
Metal Railings (excluding wire fence)	Yes	
Frames and Grates	Yes	
Signature:	Date:	

#### U.S. ARMY CORPS OF ENGINEERS PERMIT



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO ATTENTION OF

Operations Division

SUBJECT: CEMVR-OD-P-2014-1085

Paul Loete, P.E. – Region 2 Engineer Illinois Department of Transportation Division of Highways – District 3 700 East Norris Drive Ottawa, Illinois 61350

SED 0.4.14
SAP ENG CATIONS
BECATIONS
PLANS ENG
GEOMETRICS
HYDRAULICS
HYDRAULICS
HYDRAULICS
FLANS ENG
SEE ME
SEC
CO-CRD

Contract # 66901

Dear Mr. Loete:

Our office reviewed all materials in the application received, July 14, 2014, concerning the proposed placement of culvert extensions (SN 006-2506) on IL 26 over Epperson Run, near Princeton, IL in Section 32, Township 16 North, Range 9 East, Bureau County in Illinois.

Your project is covered under Nationwide Permit No. 14, as published in the enclosed Fact Sheet No. 7 (IL), provided you meet the permit conditions for the nationwide permits, which are also included in the Fact Sheet. The Illinois Department of Transportation is responsible for the NEPA process for this project which includes compliance with the Endangered Species Act and the National Historic Preservation Act. The Illinois Environmental Protection Agency (IEPA) also issued Section 401 Water Quality Certification with conditions for this nationwide permit. Please note these additional conditions included in the Fact Sheet. The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision.

This verification is valid until March 18, 2017, unless the nationwide permit is modified, reissued or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from this date to complete your activity under the present terms and conditions of this nationwide permit. If your project plans change, you should contact our office for another determination.

Our office has completed a Preliminary Jurisdictional Determination concerning your project area. A Preliminary Jurisdictional Determination is not appealable, and it is applicable only to the permit program administered by the Corps of Engineers.

This authorization does not eliminate the requirement that you must still acquire other applicable Federal, state, and local permits. If you have not already coordinated your project with the Illinois Department of Natural Resources – Office of Water Resources, please contact them at 217/782-3863 to determine if a floodplain development permit is required for your project. You may contact the IEPA Facility Evaluation Unit at 217/782-3362 to determine whether additional authorizations are required from the IEPA. Please send any electronic correspondence to EPA.401.bow@illinois.gov.

-2-

You are required to complete and return the enclosed "Completed Work Certification" upon completion of your project, in accordance with General Condition No. 30 of the nationwide permits.

The Rock Island District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete the attached postcard and return it or go to our Customer Service Survey found on our web site at <a href="http://per2.nwp.usace.army.mil/survey.html">http://per2.nwp.usace.army.mil/survey.html</a>. (Be sure to select "Rock Island District" under the area entitled: Which Corps office did you deal with?)

Should you have any questions, please contact our Regulatory Branch by letter, telephone or email Mrs. Kirsten Brown at 309/794-5104 or <u>Kirsten.L.Brown@usace.army.mil</u>.

Sincerely

Donna M. Jones, P.E.

Chief, Illinois/Missouri Section

Regulatory Branch

-3-

When the structure(s) or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s), of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Transferee Date

Enclosures

Copies Furnished: (w/o enclosures)

Mr. Mike Diedrichsen, P.E. Office of Water Resources IL Department of Natural Resources One Natural Resources Way Springfield, Illinois 62701-1271

Mr. Dan Heacock Illinois Environmental Protection Agency Watershed Mgmt Section, Permit Sec. 15 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276 Epa.401.bow@illinois.gov (email copy)

U.S. Army Corps of Engineers Illinois Waterway Project Office 257 Grant Street Peoria, Illinois 61603

## COMPLETED WORK CERTIFICATION

Permit Number:	CEMVR-OD-P-2014-1085
Name of Permittee:	Illinois Department of Transportation (SN 006-2506)
Date of Issuance:	August 29, 2014
County/State:	Bureau/Illinois
Upon completion of t permit, sign this certi	he activity authorized by this permit and any mitigation required by the fication and return it to the following address:
	U.S. Army Engineer District, Rock Island ATTN: Regulatory Branch Clock Tower Building Post Office Box 2004 Rock Island, Illinois 61204-2004
Please note that your of Engineers represensuspension, modification	permitted activity is subject to a compliance inspection by a U.S. Army Corps tative. If you fail to comply with this permit, you are subject to permit tion, or revocation.
I hereby certify that the accordance with the tin accordance with the	he work authorized by the above reference permit has been completed in erms and conditions of the said permit, and required mitigation was completed the permit conditions.
Signature of Permitte	Date

KB

## **SWPPP**



16	or iransportation	Stor	m Water Pollution Prevention Plan
Route	FAP 316	Marked Rte.	IL 26
Section	(116) R,T	Project No.	
County	Bureau	Contract No.	66901
Permit No	has been prepared to comply with the provisions of to. ILR10 (Permit ILR10), issued by the Illinois Enviror struction site activities.	he National Pollut nmental Protection	ant Discharge Elimination System (NPDES) Agency (IEPA) for storm water discharges
accordan submitted gathering am aware for knowle	under penalty of law that this document and all attactive with a system designed to assure that qualified it. Based on my inquiry of the person or persons who the information, the information submitted is, to the been that there are significant penalties for submitting falseing violations.	personnel proper manage the syste est of my knowledge information, inclu	ly gathered and evaluated the information em, or those persons directly responsible for se and belief, true, accurate and complete. I ding the possibility of fine and imprisonment
	Paul Loefe Print Name		aul Loele *.5 Signature
D	eporty Director of Highways		1-12-15
2	IDOT District 3		Date
	Agency		
I. Site	Description:		
A.	Provide a description of the project location (include l		
	IL 26 from Red Covered Bridge Road to Interstate 80 and longitude 89.470 degrees W.	westbound ramps	s. Approximate latitude 41.405 degrees N
B.	Provide a description of the construction activity which	h is the subject of	this plan:
	Roadway widening and reconstruction, ditch grading grading.	, pipe culvert insta	llation, box culvert construction, and general
C.	Provide the estimated duration of this project:		
	2 years.		
D.	The total area of the construction site is estimated to	be <u>11.5</u> acres.	
	The total area of the site estimated to be disturbed by	y excavation, grad	ing or other activities is 10.1 acres.
E.	The following is a weighted average of the runof completed:	f coefficient for t	his project after construction activities are
	0.63		
F.	List all soils found within project boundaries. Include	map unit name, s	ope information, and erosivity:
	The predominant soil type found in the project are values) from 1800 N. Avenue to the north (resurfac values from 1800 N. Avenue to the south (widening a to 0.43. Soils with a K value greater than 0.35 are conservation Service (NRCS) Illinois Urban Manual. shall be employed during construction. For more infultip://www.soils.usda.gov. Map unit names of soils were values of the solution of the project are values.	cing portion of pro and reconstruction ensidered highly er Measures to pro formation on these	ject area) range from 0.28 to 0.37. The K portion of the project area) range from 0.37 odible by the Natural Resources tect these soils, such as temporary seeding, soil types, see the USDA-NRCS website at:
	Muscatune silt loam, 0 to 2 percent slopes		

Printed 1/12/2015 Page 1 of 9 BDE 2342 (Rev. 03/20/14)

Atterberry silt loam, 0 to 2 percent slopes Sable silty clay loam, 0 to 2 percent slopes Osco silt loam, 2 to 5 percent slopes, eroded Greenbush silt loam, 2 to 5 percent slopes Greenbush silt loam, 5 to 10 percent slopes, eroded Buckhart silt loam, 0 to 2 percent slopes Orthents, loamy, undulating

G. Provide an aerial extent of wetland acreage at the site:

None present

H. Provide a description of potentially erosive areas associated with this project:

Areas north of 1800 N. Avenue have K values greater than 0.35 which are considered highly erodible.

 The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

Excavation, trenching and backfill, embankment, ditch grading, drainageway relocation along entire project limits. Steep embankment slopes at the double box culvert location near the south end of the project.

- J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.
- K. Identify who owns the drainage system (municipality or agency) this project will drain into:

Agency

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located.

None

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans;

Drainage through the site is conveyed to the tributary to Epperson Run that runs through the site from the northeast to the southeast.

Epperson Run crosses the site from east to west at the south end of the project.

There are no wetlands on the project site.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

The following sensitive environmental resources are associated with this project, and may have the natorial to be

None

Other

	acted by the proposed development:
	Floodplain
	Wetland Riparian
	Threatened and Endangered Species
	Historic Preservation
	303(d) Listed receiving waters for suspended solids, turbidity, or siltation
	Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
	Applicable Federal, Tribal, State or Local Programs

1. 303(d) Listed receiving waters (fill out this section if checked above):

Printed 1/12/2015

Page 2 of 9

BDE 2342 (Rev. 03/20/14)

	a.	The name(s) of the listed wa	ater body, and i	dentification of all pollutants causing i	impairment:
	b.			d sediment control practices will p al to or greater than a twenty-five (25	
	c.	Provide a description of the body:	e location(s) of	direct discharge from the project si	te to the 303(d) water
	d.	Provide a description of the	location(s) of a	ny dewatering discharges to the MS4	and/or water body:
2.	TMD	L (fill out this section if check	ed above)		
	a.	The name(s) of the listed wa	ater body:		
	b.			diment control strategy that will be income and requirements of the TMDL:	corporated into the site
	C.			n has been established that would cessary steps to meet that allocation:	apply to the project's
P. The fo	ollowi	ng pollutants of concern will b	oe associated w	ith this construction project:	
	Cor Cor Soli Pair Solv	Sediment corete corete Truck Waste corete Curing Compounds d Waste Debris nts vents illizers / Pesticides		Petroleum (gas, diesel, oil, kerosene Antifreeze / Coolants Waste water from cleaning construct Other (specify) Other (specify) Other (specify) Other (specify) Other (specify)	
Controls:					
described in will be respo the impleme any propose	I.C. onsible entation	above and for all use areas, the for its implementation as in on of the measures indicated anges, maintenance, or modern and the second	oorrow sites, an adicated. The C . The Contract difications to ke	implemented for each of the major d waste sites. For each measure dis Contractor shall provide to the Reside or, and subcontractors, will notify the ep construction activities compliant forms which are attached to, and are	cussed, the Contractor ent Engineer a plan for e Resident Engineer of with the Permit ILR10.
A. Erosi	on ar	d Sediment Controls: At a r	minimum, contro	ols must be coordinated, installed and	maintained to:
2	. Mi . Ma rer	nimize the amount of soil expr nimize the disturbance of stee nintain natural buffers around moval and maximize storm wanimize soil compaction and, u	ep slopes; surface waters, ater infiltration, u	direct storm water to vegetated area unless infeasible;	s to increase sediment
1/12/2015			Page 3 of 9		BDE 2342 (Rev. 03/20/14)

II.

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В.	site- specific preserved but are not strips, protein below in III have temportion of twill not occur.  1. Which is the specific protein of twill not occur.	ic scheduling of the implementa where attainable and disturbed limited to: temporary seeding, ection of trees, preservation of r B)(1) and II(B)(2), stabilization or roarily or permanently ceased, be site has temporarily or permaur for a period of fourteen (14) onere the initiation of stabilization iated as soon as practicable.	tion of the prace portions of the permanent see nature vegetati measures shall out in no case nanently ceases or more calendan measures is wity has tempo	etices site veding, ion, a be in more on al ar da precli	erim and permanent stabilization practices, including . Site plans will ensure that existing vegetation is will be stabilized. Stabilization practices may include mulching, geotextiles, sodding, vegetative buffer nd other appropriate measures. Except as provided itiated immediately where construction activities than one (1) day after the construction activity in that Il disturbed portions of the site where construction ys. uded by snow cover, stabilization measures shall be ceased and will resume after fourteen (14) days, a
		nporary stabilization method car		roioo	
		ng stabilization practices will be		rojec	<b>C</b>
		Preservation of Mature Vegeta Vegetated Buffer Strips Protection of Trees Temporary Erosion Control Se Temporary Turf (Seeding, Clast Temporary Mulching Permanent Seeding	eding ss 7)		Erosion Control Blanket / Mulching Sodding Geotextiles Other (specify) Other (specify) Other (specify) Other (specify)
	Describe h	ow the stabilization practices lis	ted above will b	be uti	lized during construction:
	Slopes that protected.	t are not required to be distr	urbed by cons	structi	on will have the vegetation maintained and trees
	Temporary or more.	seeding and mulch will be used	for ground sta	abiliza	ation in areas that will not be re-disturbed for 21 days
	Describe h completed:		listed above	will	be utilized after construction activities have been
	Permanent	seeding will be placed on slope	es when constru	uction	n is completed.
C.	degree atta pollutants f barrier, ear spreaders,	ainable, to divert flows from ex- from exposed areas of the site th dikes, drainage swales, sec storm drain inlet protection, roor permanent sediment basins.	posed soils, s Such praction diment traps, cock outlet pro	tore for the state of the state	tructural practices that will be implemented, to the flows or otherwise limit runoff and the discharge of lay include but are not limited to: perimeter erosion checks, subsurface drains, pipe slope drains, level on, reinforced soil retaining systems, gabions, and these devices may be subject to Section 404 of the
	The followi	ng structural practices will be us	ed for this proj	ect:	
		Perimeter Erosion Barrier Temporary Ditch Check Storm Drain Inlet Protection Sediment Trap Temporary Pipe Slope Drain Temporary Sediment Basin Temporary Stream Crossing Stabilized Construction Exits Turf Reinforcement Mats Permanent Check Dams Permanent Sediment Basin Aggregate Ditch Paved Ditch			Rock Outlet Protection Riprap Gabions Slope Mattress Retaining Walls Slope Walls Concrete Revetment Mats Level Spreaders Other (specify) Other (specify) Other (specify) Other (specify) Other (specify)
Printed 1/12/2	2015		Page 4 of 9		BDE 2342 (Rev. 03/20/14)

155

Describe how the structural practices listed above will be utilized during construction:

Perimeter erosion control barrier will be used where there is potential for silt to leave the site.

Temporary ditch checks will be placed in all ditches.

Inlet protection will be used at all existing and proposed inlets and at the upstream ends of culverts as applicable.

Turf reinforcement mats will be used on steep slopes and in ditches throughout the site with high probability for erosion potential.

Rock outlet protection at the outlets of pipe culverts with high exit velocities. Riprap will be used at the outlets of box culverts.

Additional erosion control barriers will be used along the project as work progresses as necessary.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Rock outlet protection at the outlets of pipe culverts with high exit velocities. Riprap will be used at the outlets of box culverts.

Aggregate and paved ditches will be permanently installed at high velocity locations.

### D. Treatment Chemicals

Will polymer floccula	ants or treatment	chemicals be utilized	on this project:	☐ Yes ☒ No
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If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

- E. Permanent Storm Water Management Controls: Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
  - Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel
as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural
physical and biological characteristics and functions are maintained and protected (e.g. maintenance of
hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of
construction activities).

Description of permanent storm water management controls:

Ditches and swales are present throughout the site with permanent seeding. Turf reinforcement mat will remain in place.

Rock outfall protection and riprap will remain in place at the outlets of culverts.

Aggregate and paved ditches will remain in place at high velocity locations.

Printed 1/12/2015 Page 5 of 9 BDE 2342 (Rev. 03/20/14)

F. Approved State or Local Laws: The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

Refer to the erosion control plan sheets included in the Proposed Highway Plans for FAP Route 316 (IL 26), Contract No. 66901.

- G. Contractor Required Submittals: Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.
  - The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
    - · Approximate duration of the project, including each stage of the project
    - · Rainy season, dry season, and winter shutdown dates
    - Temporary stabilization measures to be employed by contract phases
    - · Mobilization timeframe
    - Mass clearing and grubbing/roadside clearing dates
    - · Deployment of Erosion Control Practices
    - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
    - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
    - · Paving, saw-cutting, and any other pavement related operations
    - Major planned stockpiling operations
    - Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
    - Permanent stabilization activities for each area of the project
  - 2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- · Waste Disposal Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
- Concrete Residuals and Washout Wastes Discuss the location and type of concrete washout facilities
  to be used on this project and how they will be signed and maintained.
- Litter Management Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Vehicle and Equipment Cleaning and Maintenance Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- · Additional measures indicated in the plan.

#### III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

If at any time an installed erodion control measure becomes damaged or filled with sediment causing it not to function properly, it shall be cleaned and repaired to insure it is working properly and meets standards.

### IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: <a href="mailto:epa.swnoncomp@illinois.gov">epa.swnoncomp@illinois.gov</a>, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Printed 1/12/2015 Page 7 of 9 BDE 2342 (Rev. 03/20/14)

Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section 1021 North Grand East Post Office Box 19276 Springfield, Illinois 62794-9276

Additional Inspections Required:

#### V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.

Printed 1/12/2015 Page 8 of 9 BDE 2342 (Rev. 03/20/14)



### **Contractor Certification Statement**

Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	FAP 316	Marked Rte.	IL 26
Section	(116) R,T	Project No.	
County	Bureau	Contract No.	66901
Permit N I certify usessociate In additional project; I to be in confident to the confident	tification statement is a part of SWPPP for the problem. ILR10 issued by the Illinois Environmental Protect ander penalty of law that I understand the terms of ead with industrial activity from the construction site on, I have read and understand all of the informat have received copies of all appropriate maintenant compliance with the Permit ILR10 and SWPPP and extractor	the Permit No. IL identified as part ion and requirem nce procedures;	R 10 that authorizes the storm water discharges of this certification.  ents stated in SWPPP for the above mentioned and, I have provided all documentation required
	Print Name	8 <del>.000</del>	Signature
	Title		Date
	Name of Firm	(	Telephone
	Street Address	N <del>a.</del>	City/State/ZIP
Items wh	nich this Contractor/subcontractor will be responsib	le for as required	in Section II.G. of SWPPP:

Printed 1/12/2015 Page 7 of 7 BDE 2342a (Rev. 3/20/14)

## ILLINOIS DEPARTMENT OF NATURAL RESOURCES PERMIT

Illinois Natura	Department of al Resources	COMMI	TMENT			
	ources Way Springfield, Illinois 62		PROGRAM DE	NED OPWEND		
July 11, 201			JUL :	JUZ 14 14		
SUBJECT:  Illinois Depar ATTN: Mr. F 700 East No		Contract 6690	LA ENG S&P ENG PD SEC CADD CO-ORD PROG ENG PHON SUP SURVEY	P-13		
Ottawa, Illino			URBAN PLAN SEE ME PREPARE ANS			
properties ar demonstrable Report. This authorization If any change submitted pro on the date in	ation that the extension will the fact that the existing of flood damages, as indicated permit does not supersed as that may be required for the existing that may be required for the existing the permitted work are expenditly to this office for review of the existing that the exist	culvert has not been ted in the data sheet any other federal, sthe project.  If found necessary, rew and approval. Also If unable to complete	the cause of in the Hydraulic tate or local evised plans shoul so, this permit expect the work by that	d be ires		
	ree to contact Jerry Bishoff s concerning this authoriza		8-6617 if you have	е		
Michael L. Di	edrichsen, P.E. ger, Downstate Regulatory	Programs				
	w (D. Carl Puzey, Attn: David Army Corps of Engineers, F		CEMVR-OD-P)			



PERMIT NO. DS2014049 DATE: July 11, 2014

# State of Illinois Department of Natural Resources, Office of Water Resources

Permission is hereby granted to:

ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, DISTRICT 3 700 EAST NORRIS DRIVE OTTAWA, ILLINOIS 61350

to raise the grade of Illinois Highway 26 over Epperson Run and extend the existing culvert in the Northwest ¼ of Section 4, Township 16 North, Range 9 East of the 4<sup>th</sup> Principal Meridian in Bureau County,

in accordance with an application dated June 19, 2014, and the plans and specifications entitled:

PROPOSED ROADWAY PROFILE, IL ROUTE 26 OVER EPPERSON RUN, S.N. 006-2506 (Exhibit 5B); PROPOSED CONDITIONS ANALYSIS, IL ROUTE 26 OVER EPPERSON RUN (Exhibit 12); and PROPOSED STRUCTURE US ROUTE 26 OVER EPPERSON RUN, S.N. 006-2506 (Exhibit 13) (Exhibits in the May 2008 Hydraulic Report for II Route 26 over Epperson Run).

Examined and Recommended:

Michael L. Diedrichsen, Acting Manager Downstate Regulatory Programs Approval Recommended:

Arlan R. Juhl, Director Office of Water Resources

Approved:

Marc Miller, Director

**Department of Natural Resources** 

This PERMIT is subject to the terms and special conditions contained herein.

## **PERMIT NO. DS2014049**

### THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

- 1) This permit is granted in accordance with the Rivers, Lakes and Streams Act "615 ILCS 5."
- 2) This permit does not convey title to the permittee or recognize title of the permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the activity or any part thereof will be located, or otherwise grant to the permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- This permit does not release the permittee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.
- This permit does not relieve the permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permittee is required by law to obtain approvals from any federal or other state agency to do the work, this permit is not effective until the federal and state approvals are obtained.
- 5) The permittee shall, at the permittee's own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
- In public waters, if future need for public navigation or other public interest by the state or federal government necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or the permittee's successors as required by the Department or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.
- 7) The execution and details of the work authorized shall be subject to the review and approval of the Department. Department personnel shall have the right of access to accomplish this purpose.
- 8) Starting work on the activity authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.
- 9) The Department in issuing this permit has relied upon the statements and representations made by the permittee; if any substantive statement or representation made by the permittee is found to be false, this permit will be revoked; and when revoked, all rights of the permittee under the permit are voided.
- 10) In public waters, the permittee and the permittee's successors shall make no claim whatsoever to any interest in any accretions caused by the activity.
- 11) In issuing this permit, the Department does not ensure the adequacy of the design or structural strength of the structure or improvement.
- 12) Noncompliance with the conditions of this permit will be considered grounds for revocation.
- 13) If the construction activity permitted is not completed on or before <u>December 31, 2017</u>, this permit shall cease and be null and void.

## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2015-59598

PERMIT NO.: 2015-HB-59598

FINAL PLANS, SPECIFICATIONS, APPLICATION

AND SUPPORTING DOCUMENTS

DATE ISSUED: March 31, 2015

PREPARED BY: Illinois Department of Transportation

SUBJECT: PRINCETON - FAP Route 316(IL) Section(116), R, T (Princeton Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Princeton 2 South Main Street Princeton, IL 61356

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

52 feet of 10 inch sanitary sewer and 1 manhole to serve existing flow (0 P.E., 0 GPD, DAF) located at the intersection of Illinois Route 26 and Interstate 80 with discharge to an existing 10 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

SPECIAL CONDITION 2: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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EPA-Rockford FOS

Illinois Department of Transportation

Records - Municipal

Alan Keller, P.E.

Manager, Permit Section

Alan Keller by Aro

## READ ALL CONDITIONS CAREFULLY: STANDARD CONDITIONS

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12. Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

- Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
- The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
- There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
- The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
  - to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
  - to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
  - to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
  - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
  - to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

- 5. The issuance of this permit:
  - shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
  - does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities:
  - does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
  - in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
- These standard conditions shall prevail unless modified by special conditions.
- The Agency may file a complaint with the Board for suspension or revocation of a permit:
  - upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
  - upon finding that any standard or special conditions have been violated; or
  - upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

#### **ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

#### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

- 2. Subject to the applicability criteria noted in the following sections, 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.
- 3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
- 4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

#### II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

- 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, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) 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 provisions of the Americans with 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 contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.
- b. The contractor will accept as its 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, pre-apprenticeship, and/or onthe-job training."
- 2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program 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 minorities and women.
- 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 minorities and women 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 employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women 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, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such 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 its 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 their avenues of appeal.

#### 6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- 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. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- 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 employees who are minorities and women 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 good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 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 good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith 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 contracting agency 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 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 qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. 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 contracting agency.

- 8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. 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. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
- b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### 10. Assurance Required by 49 CFR 26.13(b):

- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
- b. The contractor 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 DOT-assisted contracts. 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 contracting agency deems appropriate.
- 11. 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 the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
  - a. The records kept by the contractor shall document the following:
- (1) The number and work hours of minority and nonminority 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; and
  - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
- b. The contractors and subcontractors will submit an annual report to the contracting agency 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. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color,

religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or singleuser restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

#### IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics 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 issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, 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 29 CFR 5.5(a)(4). 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. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) 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.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), 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 Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The 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.
- (3) In the event the contractor, the laborers or mechanics to be employed in the 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 questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour 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.
- (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs 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.

### 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor 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, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, 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 contracting agency 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.

#### 3. Payrolls and basic records

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of 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. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose Wage and Hour Division Web http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..
- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
  - (ii) That each 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 Regulations, 29 CFR part 3;

- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) 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 3.b.(2) of this section.
- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, 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 FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action 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.

#### 4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker 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 on 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 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's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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 journeymen 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 determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman 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 listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. 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.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
  - d. 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.

- **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- **6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- **7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

- **8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- **9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 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 U.S. Department of Labor, or the employees or their representatives.

#### 10. Certification of eligibility.

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

#### V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- 1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the 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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys 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 (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

#### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

- 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 contracting agency. 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 635.116).
- a. The term "perform work with its own organization" refers to workers employed or leased 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 or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
  - (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
- 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 or propose 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 VI 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 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 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 contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.
- 5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

#### **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 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 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. 3704).
- 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.3704).

### **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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, Form FHWA-1022 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:

#### 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 under this title or imprisoned not more than 5 years or both."

## IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

- 1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
- 2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

## X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more — as defined in 2 CFR Parts 180 and 1200.

### 1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier 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 first tier 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 first tier 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 contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier 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," "participant," "person," "principal," and "voluntarily excluded,"

as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- f. The prospective first 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 entering into this transaction.
- g. The prospective first tier 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 Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- 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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective 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.

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## 2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-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;
- (3) 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 (a)(2) of this certification; and

- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- b. Where the prospective 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 Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- 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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- 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 exceeding the \$25,000 threshold.
- 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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), which is compiled by the General Services Administration.
- 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 dealings.

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 Participants:

- 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 participating in covered transactions 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.

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## XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is 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 its bid or proposal that the participant 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 shall be the minimum paid by contractors and subcontractors to laborers and mechanics.