

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. These documents must be received three days before the letting date.

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 <http://www.dot.il.gov/desenv/delett.html> 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 D&Econtracts@dot.il.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or Timothy.Garman@illinois.gov.

BID SUBMITTAL GUIDELINES AND CHECKLIST

In an effort to eliminate confusion and standardize the bid submission process the Contracts Office has created the following guidelines and checklist for submitting bids.

This information has been compiled from questions received from contractors and from inconsistencies noted on submitted bids. If you have additional questions please refer to the contact information listed below.

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

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. This page has the Item number 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 after you are awarded the contract.
- 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.

Use the following checklist to ensure completeness and the correct order in assembling your bid

Illinois Office Affidavit (Not applicable to federally funded projects) insert your affidavit after page 4 along with your Cost Adjustments for Steel, Bituminous and Fuel (if applicable).

Cover page (the sheet that has the item number on it) **followed by your bid (the 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). Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount (if over \$50,000). If you will use subcontractor(s) but are uncertain who or the dollar amount; check “YES” but leave the lines blank.

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 Union Local Name and number or certified training programs that you have in place. **Your bid will not be read if this is not completed.** 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 Form A that is filled out.

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 financial 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 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 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”.

Bid Bond – Submit your bid bond using the current Bid Bond Form provided in the proposal package. The Power of Attorney page should be stapled to the Bid Bond. If you are using an electronic bond, include your bid bond number on the form and attach the Proof of Insurance printed from the electronic bond Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort – The last item in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation for a Good Faith Effort, it should follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:20 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main page of the current letting.

QUESTIONS: pre-letting up to execution of the contract

Contractor/Subcontractor pre-qualification -----217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE) -----217-785-4611
Contracts, Bids, Letting process or Internet downloads-----217-782-7806
Estimates Unit -----217-785-3483
Aeronautics -----217-785-8515
IDNR (Land Reclamation, Water Resources, Natural Resources) -----217-782-6302

QUESTIONS: following contract execution

Including Subcontractor documentation, payments -----217-782-3413
Railroad Insurance -----217-785-0275

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RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting January 18, 2013

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



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 72961
CHRISTIAN County
Section 11-13
Route FAP 322
Project ACNHF-0322(096)
District 6 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

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

Prepared by

F

Checked by

(Printed by authority of the State of Illinois)

Page intentionally left blank

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

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

**Contract No. 72961
CHRISTIAN County
Section 11-13
Project ACNHF-0322(096)
Route FAP 322
District 6 Construction Funds**

This project consists of 4.5 miles of proposed four lane expressway, double concrete box culverts, and side road relocations beginning 1.75 miles south of Assumption and ending approximately 3 miles north of Pana.

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

RETURN WITH BID

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

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

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

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.

8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.

9. **The services of a subcontractor will be used.**

Check box Yes
 Check box No

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor.
 (30 ILCS 500/20-120)

10. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 72961

State Job # - C-96-501-09

County Name - CHRISTIAN -
 Code - 21 - -
 District - 6 - -
 Section Number - 41226

Project Number
 ACNHF-0322/096/

Route
 FAP 322

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0321309	CONCRETE PAD	SQ YD	74.000				
X0322584	REVTMENT MAT REMOVAL	SQ YD	34.000				
X0322936	REMOV EX FLAR END SEC	EACH	1.000				
X0325451	NON-SHRINK GROUT	CU FT	4.400				
X0325607	GR STAB GEOSYNTHETIC	SQ YD	4,500.000				
X0326911	TRANSVERSE DRAINS COM	EACH	10.000				
X2020500	EARTH EXC - ROCKFILL	CU YD	5,900.000				
X2070304	POROUS GRAN EMB SPEC	CU YD	255.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	5.000				
X4022000	TEMP ACCESS- COM ENT	EACH	3.000				
X4023000	TEMP ACCESS- ROAD	EACH	3.000				
X4024000	TEMP ACCESS- FLD ENT	EACH	13.000				
X4811300	AGGREGATE SHLDS B SPL	TON	516.000				
X5030305	CONC WEARING SURF 5	SQ YD	363.000				
X6015015	REM REP C HDWL P UNDR	EACH	4.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X6020073	INLETS TA T8G TEMP	EACH	2.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7830072	GRV RCSD PVT MRKG 6	FOOT	95,299.000				
X7830074	GRV RCSD PVT MRKG 7	FOOT	642.000				
Z0004638	PAVT BREAKING	SQ YD	14,645.000				
Z0005010	HMA F PATCH (C M)	TON	75.000				
Z0007601	BLDG REMOV NO 1	L SUM	1.000				
Z0007602	BLDG REMOV NO 2	L SUM	1.000				
Z0007603	BLDG REMOV NO 3	L SUM	1.000				
Z0007604	BLDG REMOV NO 4	L SUM	1.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018002	DRAINAGE SCUPPR DS-11	EACH	4.000				
Z0023602	GRAN CULVERT BACKFILL	CU YD	1,820.000				
Z0023900	FILL EXIST WELLS	EACH	1.000				
Z0026305	FUR & MAIN AUTO VEH	CAL MO	66.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
Z0029090	DIAMOND GRIND BR SEC	SQ YD	734.000				
Z0034105	MATL TRANSFER DEVICE	TON	29,280.000				
Z0038500	PERMANENT BARRICADES	EACH	2.000				
Z0038506	REMOVE PERM BARRICADE	L SUM	1.000				
Z0041500	PLUG EX CULVERTS	EACH	1.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	390.000				
Z0054515	ROCK FILL - EMBANK	TON	4,900.000				
Z0054517	ROCK FILL - FOUNDATN	TON	1,139.000				
Z0073002	TEMP SOIL RETEN SYSTM	SQ FT	879.000				
20100110	TREE REMOV 6-15	UNIT	576.000				
20100210	TREE REMOV OVER 15	UNIT	739.000				
20100500	TREE REMOV ACRES	ACRE	1.000				
20200100	EARTH EXCAVATION	CU YD	364,110.000				
20201200	REM & DISP UNS MATL	CU YD	2,200.000				
20300100	CHANNEL EXCAVATION	CU YD	685.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
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Project Number
 ACNHF-0322/096/

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
20400800	FURNISHED EXCAVATION	CU YD	110,540.000				
20800150	TRENCH BACKFILL	CU YD	1,638.000				
21101615	TOPSOIL F & P 4	SQ YD	374,315.000				
21301060	EXPLOR TRENCH 60	FOOT	45,000.000				
21400100	GRADING & SHAP DITCH	FOOT	800.000				
25000200	SEEDING CL 2	ACRE	105.000				
25000320	SEEDING CL 5	ACRE	8.500				
25000350	SEEDING CL 7	ACRE	50.000				
25000400	NITROGEN FERT NUTR	POUND	9,450.000				
25000500	PHOSPHORUS FERT NUTR	POUND	9,450.000				
25000600	POTASSIUM FERT NUTR	POUND	9,450.000				
25000700	AGR GROUND LIMESTONE	TON	210.000				
25000750	MOWING	ACRE	50.000				
25003210	INTERSEED CL 2A	ACRE	20.000				
25100115	MULCH METHOD 2	ACRE	155.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
25100630	EROSION CONTR BLANKET	SQ YD	4,000.000				
25100635	HD EROS CONTR BLANKET	SQ YD	17,000.000				
28000200	EARTH EXC - EROS CONT	CU YD	1,000.000				
28000250	TEMP EROS CONTR SEED	POUND	21,000.000				
28000305	TEMP DITCH CHECKS	FOOT	1,000.000				
28000315	AGG DITCH CHECKS	TON	600.000				
28000400	PERIMETER EROS BAR	FOOT	3,000.000				
28000500	INLET & PIPE PROTECT	EACH	75.000				
28100107	STONE RIPRAP CL A4	SQ YD	3,120.000				
28100705	STONE DUMP RIP CL A3	SQ YD	4,890.000				
28100707	STONE DUMP RIP CL A4	SQ YD	19,854.000				
28100805	STONE DUMP RIP CL A3	TON	500.000				
28200200	FILTER FABRIC	SQ YD	23,774.000				
30200650	PROCESS MOD SOIL 12	SQ YD	229,363.000				
30201500	LIME	TON	4,589.300				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT
NUMBER - 72961

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Section Number - 41226

Project Number
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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
30300011	AGG SUBGRADE IMPROVE	TON	8,400.000				
31100100	SUB GRAN MAT A	TON	3,000.000				
31100700	SUB GRAN MAT A 8	SQ YD	7,778.000				
31100910	SUB GRAN MAT A 12	SQ YD	7,464.000				
31101900	SUB GRAN MAT C	TON	27,312.000				
35100100	AGG BASE CSE A	TON	37.000				
35100900	AGG BASE CSE A 10	SQ YD	13,256.000				
35501318	HMA BASE CSE 8 1/2	SQ YD	3,707.000				
35501322	HMA BASE CSE 9 1/2	SQ YD	2,893.000				
35501324	HMA BASE CSE 10	SQ YD	3,681.000				
40200100	AGG SURF CSE A	TON	1,325.000				
40201000	AGGREGATE-TEMP ACCESS	TON	200.000				
40300200	BIT MATLS PR CT	TON	18.900				
40300400	BIT MATLS C&S CT	TON	57.300				
40300500	COVER COAT AGG	TON	133.000				

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40300600	SEAL COAT AGG	TON	266.000				
40600200	BIT MATLS PR CT	TON	182.500				
40600300	AGG PR CT	TON	333.500				
40600635	LEV BIND MM N70	TON	332.000				
40600895	CONSTRUC TEST STRIP	EACH	4.000				
40600982	HMA SURF REM BUTT JT	SQ YD	199.000				
40600990	TEMPORARY RAMP	SQ YD	1,000.000				
40603085	HMA BC IL-19.0 N70	TON	891.000				
40603315	HMA SC "C" N70	TON	767.000				
40603515	P HMA SC "C" N70	TON	363.000				
40603540	P HMA SC "D" N70	TON	1,318.000				
40701866	HMA PAVT FD 9 1/4	SQ YD	7,623.000				
40701956	HMA PAVT FD 13 3/4	SQ YD	140,247.000				
40800050	INCIDENTAL HMA SURF	TON	22.000				
42001430	BR APPR PVT CON (FLX)	SQ YD	2,143.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
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72961

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 Code - 21 - -
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 Section Number - 41226

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44000100	PAVEMENT REM	SQ YD	44,313.000				
44000157	HMA SURF REM 2	SQ YD	5,832.000				
44000600	SIDEWALK REM	SQ FT	311.000				
44004000	PAVED DITCH REMOVAL	FOOT	3,532.000				
44004250	PAVED SHLD REMOVAL	SQ YD	3,290.000				
44200144	PAVT PATCH T2 12	SQ YD	25.000				
48101200	AGGREGATE SHLDS B	TON	13,435.000				
48203029	HMA SHOULDERS 8	SQ YD	73,543.000				
50100300	REM EXIST STRUCT N1	EACH	1.000				
50100400	REM EXIST STRUCT N2	EACH	1.000				
50100500	REM EXIST STRUCT N3	EACH	1.000				
50100600	REM EXIST STRUCT N4	EACH	1.000				
50100700	REM EXIST STRUCT N5	EACH	1.000				
50100800	REM EXIST STRUCT N6	EACH	1.000				
50102400	CONC REM	CU YD	84.100				

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50105220	PIPE CULVERT REMOV	FOOT	1,902.000				
50200100	STRUCTURE EXCAVATION	CU YD	420.000				
50200300	COFFERDAM EXCAVATION	CU YD	89.000				
50201101	COFFERDAM TYP 1 LOC 1	EACH	1.000				
50201102	COFFERDAM TYP 1 LOC 2	EACH	1.000				
50201103	COFFERDAM TYP 1 LOC 3	EACH	1.000				
50201104	COFFERDAM TYP 1 LOC 4	EACH	1.000				
50201105	COFFERDAM TYP 1 LOC 5	EACH	1.000				
50201106	COFFERDAM TYP 1 LOC 6	EACH	1.000				
50300100	FLOOR DRAINS	EACH	18.000				
50300225	CONC STRUCT	CU YD	661.900				
50300255	CONC SUP-STR	CU YD	636.000				
50300260	BR DECK GROOVING	SQ YD	1,721.000				
50300280	CONCRETE ENCASMENT	CU YD	13.900				
50300300	PROTECTIVE COAT	SQ YD	2,095.000				

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50400305	P P CONC DK BM 17 DP	SQ FT	3,262.000				
50400805	F & E P P CON I-BM 36	FOOT	1,072.000				
50800105	REINFORCEMENT BARS	POUND	118,895.000				
50800205	REINF BARS, EPOXY CTD	POUND	190,350.000				
50800515	BAR SPLICERS	EACH	132.000				
50800530	MECHANICAL SPLICERS	EACH	686.000				
50901050	STEEL RAILING TY SM	FOOT	294.000				
51201600	FUR STL PILE HP12X53	FOOT	2,041.000				
51201610	FUR STL PILE HP12X63	FOOT	1,436.000				
51202305	DRIVING PILES	FOOT	3,477.000				
51203600	TEST PILE ST HP12X53	EACH	2.000				
51203610	TEST PILE ST HP12X63	EACH	2.000				
51204650	PILE SHOES	EACH	46.000				
51500100	NAME PLATES	EACH	5.000				
54003000	CONC BOX CUL	CU YD	665.900				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
54011006	PCBC 10X6	FOOT	88.000				
542A0229	P CUL CL A 1 24	FOOT	128.000				
542A1063	P CUL CL A 2 18	FOOT	62.000				
542A1069	P CUL CL A 2 24	FOOT	1,682.000				
542A1075	P CUL CL A 2 30	FOOT	196.000				
542A1081	P CUL CL A 2 36	FOOT	184.000				
542A1087	P CUL CL A 2 42	FOOT	66.000				
542A1099	P CUL CL A 2 54	FOOT	866.000				
542A1105	P CUL CL A 2 60	FOOT	380.000				
542D0220	P CUL CL D 1 15	FOOT	54.000				
542D0223	P CUL CL D 1 18	FOOT	226.000				
542D0229	P CUL CL D 1 24	FOOT	82.000				
542D0253	P CUL CL D 1 48	FOOT	94.000				
542D0265	P CUL CL D 1 60	FOOT	78.000				
542D1069	P CUL CL D 2 24	FOOT	152.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
542D1075	P CUL CL D 2 30	FOOT	142.000				
542D1081	P CUL CL D 2 36	FOOT	88.000				
542D1093	P CUL CL D 2 48	FOOT	104.000				
5421D015	P CUL CL D 1 15 TEMP	FOOT	162.000				
5421D018	P CUL CL D 1 18 TEMP	FOOT	660.000				
5421D036	P CUL CL D 1 36 TEMP	FOOT	48.000				
54213669	PRC FLAR END SEC 24	EACH	18.000				
54213681	PRC FLAR END SEC 36	EACH	2.000				
54213687	PRC FLAR END SEC 42	EACH	2.000				
54213699	PRC FLAR END SEC 54	EACH	4.000				
54244805	INLET BOX 542501	EACH	2.000				
55100700	STORM SEWER REM 15	FOOT	244.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	140.000				
59300100	CONTR LOW-STRENG MATL	CU YD	559.000				
60100060	CONC HDWL FOR P DRAIN	EACH	138.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60107600	PIPE UNDERDRAINS 4	FOOT	79,244.000				
60108100	PIPE UNDERDRAIN 4 SP	FOOT	2,756.000				
60221100	MAN TA 5 DIA T1F CL	EACH	2.000				
60222805	MAN TA 5D M IN 604106	EACH	16.000				
60500040	REMOV MANHOLES	EACH	1.000				
60500060	REMOV INLETS	EACH	1.000				
61100605	MISC CONCRETE	CU YD	25.000				
61101009	STORM SEW PROT A 8	FOOT	3,000.000				
61101011	STORM SEW PROT A 10	FOOT	500.000				
61101013	STORM SEW PROT A 12	FOOT	3,000.000				
61101020	STORM SEW PROT A 18	FOOT	500.000				
61101026	STORM SEW PROT A 24	FOOT	500.000				
61133200	FLD TILE JUN VAULT 3D	EACH	50.000				
61133300	FLD TILE JUN VAULT 4D	EACH	4.000				
61133400	FLD TILE JUN VAULT 5D	EACH	4.000				

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61140000	STORM SEWER SPEC 8	FOOT	3,000.000				
61140100	STORM SEWER SPEC 10	FOOT	500.000				
61140200	STORM SEWER SPEC 12	FOOT	3,000.000				
61140600	STORM SEWER SPEC 18	FOOT	500.000				
61140900	STORM SEWER SPEC 24	FOOT	500.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	1,206.300				
63100085	TRAF BAR TERM T6	EACH	6.000				
63100087	TRAF BAR TERM T6A	EACH	4.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	8.000				
63100169	TR BAR TRM T1 SPL FLR	EACH	2.000				
63200310	GUARDRAIL REMOV	FOOT	1,188.000				
63500105	DELINEATORS	EACH	228.000				
64200116	SHOULDER RUM STRIP 16	FOOT	81,059.000				
66500105	WOV W FENCE 4	FOOT	922.000				
66600105	FUR ERECT ROW MARKERS	EACH	123.000				

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66700205	PERM SURV MKRS T1	EACH	22.000				
66700305	PERM SURV MKRS T2	EACH	15.000				
66900200	NON SPL WASTE DISPOSL	CU YD	9,300.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	6.000				
67000400	ENGR FIELD OFFICE A	CAL MO	30.000				
67000600	ENGR FIELD LAB	CAL MO	30.000				
67100100	MOBILIZATION	L SUM	1.000				
70100405	TRAF CONT-PROT 701321	EACH	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	36.000				
70106500	TEMP BR TRAF SIGNALS	EACH	1.000				
70300100	SHORT TERM PAVT MKING	FOOT	7,900.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	2,450.000				
70300230	TEMP PVT MK LINE 5	FOOT	224,246.000				
70300240	TEMP PVT MK LINE 6	FOOT	23,790.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70300250	TEMP PVT MK LINE 8	FOOT	4,302.000				
70300260	TEMP PVT MK LINE 12	FOOT	5,066.000				
70300280	TEMP PVT MK LINE 24	FOOT	430.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	20,922.000				
70400100	TEMP CONC BARRIER	FOOT	747.300				
70400200	REL TEMP CONC BARRIER	FOOT	304.000				
70600260	IMP ATTN TEMP FRN TL3	EACH	2.000				
70600332	IMP ATTN REL FRN TL3	EACH	2.000				
72000100	SIGN PANEL T1	SQ FT	1,353.000				
72000200	SIGN PANEL T2	SQ FT	168.000				
72800100	TELES STL SIN SUPPORT	FOOT	4,693.000				
73000100	WOOD SIN SUPPORT	FOOT	44.000				
78001100	PT PVT MK LTRS & SYMB	SQ FT	327.600				
78001120	PAINT PVT MK LINE 5	FOOT	170,592.000				
78001130	PAINT PVT MK LINE 6	FOOT	1,038.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78001180	PAINT PVT MK LINE 24	FOOT	279.000				
78003100	PREF PL PM TB LTR-SYM	SQ FT	63.000				
78003120	PREF PL PM TB LINE 5	FOOT	100.000				
78003130	PREF PL PM TB LINE 6	FOOT	359.000				
78004200	PREF PL PM TB INL L&S	SQ FT	1,162.000				
78004220	PREF PL PM TB INL L5	FOOT	11,230.000				
78004230	PREF PL PM TB INL L6	FOOT	11,253.000				
78004240	PREF PL PM TB INL L8	FOOT	2,151.000				
78004250	PREF PL PM TB INL L12	FOOT	861.000				
78004280	PREF PL PM TB INL L24	FOOT	215.000				
78009005	MOD URETH PM LINE 5	FOOT	94,769.000				
78009006	MOD URETH PM LINE 6	FOOT	283.000				
78009012	MOD URETH PM LINE 12	FOOT	1,672.000				
78100100	RAISED REFL PAVT MKR	EACH	760.000				
78100200	TEMP RAIS REF PVT MKR	EACH	2,744.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78200410	GUARDRAIL MKR TYPE A	EACH	31.000				
78200520	BAR WALL MKR TYPE B	EACH	8.000				
78201000	TERMINAL MARKER - DA	EACH	10.000				
78300100	PAVT MARKING REMOVAL	SQ FT	6,305.000				
78300200	RAISED REF PVT MK REM	EACH	26.000				
80400100	ELECT SERV INSTALL	EACH	4.000				
81028350	UNDRGRD C PVC 2	FOOT	985.000				
81028370	UNDRGRD C PVC 3	FOOT	50.000				
81100605	CON AT ST 2 PVC GALVS	FOOT	20.000				
81200230	CON EMB STR 2 PVC	FOOT	170.000				
81300530	JUN BX SS AS 12X10X6	EACH	2.000				
81603010	UD 2#10#10GXLP USE 3/4	FOOT	7,219.000				
81603065	UD 2#2#2GXLP USE 1 1/4	FOOT	2,256.000				
81702110	EC C XLP USE 1C 10	FOOT	468.000				
81800185	A CBL 2-1C1/0 MES W	FOOT	1,580.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
82102250	LUM SV HOR MT 250W	EACH	40.000				
82104000	LUM SV MM 400W	EACH	7.000				
82500300	LT CONT PM 240V 30	EACH	3.000				
82500310	LT CONT PM 240V 60	EACH	1.000				
83003600	LT P A 45MH 15DA	EACH	40.000				
83057340	LT P WD 60 CL 3	EACH	8.000				
83600355	LP F M 15BC 8" X 6'	EACH	40.000				
83800650	BKWY DEV COU SS SCRN	EACH	148.000				
84200600	REM LT U NO SALV	EACH	1.000				

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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.

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

1. The Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

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

B. Negotiations

1. The Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

C. Inducements

1. The Code provides:

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

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

D. Revolving Door Prohibition

1. The Code provides:

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.

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

E. Reporting Anticompetitive Practices

1. The Code provides:

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.

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

F. Confidentiality

1. The Code provides:

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.

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

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G. Insider Information

1. The Code provides:

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

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

III. CERTIFICATIONS

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

1. The Code provides:

Section 50-5. Bribery.

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

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

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

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, 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 1961.

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

(d) Certification. Every bid submitted to and contract executed by the State, 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.

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

B. Felons

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, 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.

1. 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.

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C. Debt Delinquency

1. The Code provides:

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

1. The Code provides:

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 subcontractor 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 500/50-12 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

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

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

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

G. Bid-Rigging/Bid Rotating

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

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

- (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.

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

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

H. International Anti-Boycott

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

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

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

I. Drug Free Workplace

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

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

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

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

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

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

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

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

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

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J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 30ILCS 500/50-36 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 shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal 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 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.**

NA-FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

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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 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 business entity 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:

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____

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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 \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, 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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form. **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. Disclosure Forms. 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. Disclosure Form Instructions

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

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 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 per person per bid even if a specific individual would require a yes answer to more than one question.)

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

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

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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 NOT APPLICABLE STATEMENT on Form A does not 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.

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ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the 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 \$25,000, 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

- 1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 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 INDIVIDUAL (type or print information) NAME: ADDRESS Type of ownership/distributable income share: stock sole proprietorship Partnership other: (explain on separate sheet): % or \$ value of ownership/distributable income share:

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

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

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___ No ___
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

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- 3. 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, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ___ No ___

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

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

Yes ___ No ___

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

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

- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess 100% of the annual salary of the Governor? Yes ___ No ___

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

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

Yes ___ No ___

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

Yes ___ No ___

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

Yes ___ No ___

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

Yes ___ No ___

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

Yes ___ No ___

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

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

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

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

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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 Representative 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 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.

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ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial Related Information Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

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

RETURN WITH BID

**Contract No. 72961
CHRISTIAN County
Section 11-13
Project ACNHF-0322(096)
Route FAP 322
District 6 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

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

Signature: _____ Title: _____ Date: _____

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

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

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

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

RETURN WITH BID

**Contract No. 72961
CHRISTIAN County
Section 11-13
Project ACNHF-0322(096)
Route FAP 322
District 6 Construction Funds**

PROPOSAL SIGNATURE SHEET

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

(IF AN INDIVIDUAL)

Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP)

Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm: _____

(IF A CORPORATION)

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)

Attest _____
Signature _____
Business Address _____

(IF A JOINT VENTURE)

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

Attest _____
Signature _____
Business Address _____

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



Item No. _____

Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

_____ as SURETY, are held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

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

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

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

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by

their respective officers this _____ day of _____ A.D., _____.

PRINCIPAL

SURETY

(Company Name)

(Company Name)

By _____
(Signature & Title)

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

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
County of _____

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

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

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

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

My commission expires _____

Notary Public

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

Electronic Bid Bond ID#

Company / Bidder Name



Signature and Title

(1) Policy

It is public policy that disadvantageded 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

The contractor agrees to ensure that disadvantageded 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) Project and Bid Identification

Complete the following information concerning the project and bid:

Route _____	Total Bid _____
Section _____	Contract DBE Goal _____
Project _____	(Percent) (Dollar Amount)
County _____	
Letting Date _____	
Contract No. _____	
Letting Item No. _____	

(4) Assurance

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

Meets or exceeds contract award goals and has provided documented participation as follows:
Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Company

By _____

Title _____

Date _____

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises **Local Let Projects**
2300 South Dirksen Parkway Submit forms to the
Springfield, Illinois 62764 Local Agency

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.

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

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

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

NOTICE

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

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

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

**Contract No. 72961
CHRISTIAN County
Section 11-13
Project ACNHF-0322(096)
Route FAP 322
District 6 Construction Funds**



Illinois Department of Transportation

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 State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

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

1. The Code provides:

Section 50-5. Bribery.

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

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

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

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, 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 1961.

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

(d) Certification. Every bid submitted to and contract executed by the State, 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.

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

B. Felons

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, 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.

2. 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.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

1. The Code provides:

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

1. The Code provides:

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 subcontractor 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 500/50-12 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

RETURN WITH SUBCONTRACT
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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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. Disclosure Forms. 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. Disclosure Form Instructions

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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a 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 a person 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? YES ___ NO ___
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 per person per subcontract 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 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 a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

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

RETURN WITH SUBCONTRACT

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 NOT APPLICABLE STATEMENT on Form A does not 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		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the 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 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

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)**

FOR INDIVIDUAL (type or print information)	
NAME:	_____
ADDRESS	_____
Type of ownership/distributable income share:	
stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):	
% or \$ value of ownership/distributable income share:	_____

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

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

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

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

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH SUBCONTRACT

3. 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, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

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

Yes ___ No ___

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

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

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

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

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.
Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.
Yes ___ No ___

RETURN WITH SUBCONTRACT

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

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

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

3 Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

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: _____ Date _____
Signature of Individual or Authorized Officer

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.

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Subcontractor: Other Contracts & Financial Related Information Disclosure

Form with fields: Subcontractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B 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 open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields for Signature of Authorized Officer and Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)



NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m January 18, 2013. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 72961
CHRISTIAN County
Section 11-13
Project ACNHF-0322(096)
Route FAP 322
District 6 Construction Funds**

This project consists of 4.5 miles of proposed four lane expressway, double concrete box culverts, and side road relocations beginning 1.75 miles south of Assumption and ending approximately 3 miles north of Pana.

- 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

Ann L. Schneider,
Secretary

INDEX
 FOR
 SUPPLEMENTAL SPECIFICATIONS
 AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2013

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 1-1-13)

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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 322 (US 51), Project ACNHF-0322(096), Section 11-13, Christian County, Contract No. 72961 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

FAP Route 322 (US 51) begins at approximately 2 ½ miles north of Illinois Route 16 along the existing US 51 alignment to approximately 1 ¾ miles south of Assumption in Christian County.

DESCRIPTION OF PROJECT

This work on Section 11-13 consists of 4.5 miles of proposed four-lane expressway, S.N. 011-0038 carrying northbound FAP 322 (US 51) over Main Drainage Ditch, S.N. 011-3362 carrying TR 255 over Main Drainage Ditch, and side road relocations and reconstructions.

General work includes the construction of a three span concrete I-beam structure with an 7 ½" concrete deck, 40 feet wide face to face of parapets, 123 feet long back to back of abutments, adding turn lanes to an existing three span I-beam structure, a three span concrete deck beam structure with a 5" concrete wearing surface, 28 feet wide face to face of bridge rail, 110 feet long back to back of abutments, earth excavation, grading, lime modified soil, hot-mix asphalt full-depth pavement, hot-mix asphalt shoulders, aggregate shoulders, aggregate base course, hot-mix asphalt surface course, pipe drains, pavement removals, pipe culverts, precast reinforced concrete box culverts, pavement marking, signage, lighting, traffic control, seeding, and miscellaneous appurtenances as shown on the plans and as specified herein.

TRAFFIC CONTROL PLAN

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, any special details and Highway Standards contained herein and in the plans.

Special attention is called to Sections 107, 701, through 704 of the Standard Specifications for Road and Bridge Construction and as amended by the Supplemental Specifications, Recurring Special Provisions, the Special Provisions contained herein, and the following Highway Standards relating to traffic control:

Traffic Control Standards:

701001	701006	701011	701101
701106			
701201	701301	701311	701321
701326			
701400	701401	701406	701901
B.L.R. 21			
B.L.R. 22			

Traffic control standards shall be applied as directed by the Engineer. Suggested applications for each standard are as follows:

701201 This standard should be used when the Contractor's work will encroach in the area between the centerline and a line 24" outside the edge of pavement. Work performed for this traffic control application will not be paid for separately, but shall be included in the cost for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum.

Anticipated major operations for application of this standard: Placement of temporary concrete barrier, pavement patching operations, and temporary culvert operations along existing US 51.

701321 This standard shall be used when the Contractor's work will require the temporary closure of one lane for a continuous period of greater than 1 calendar day. Work performed for this traffic control application will be paid for according to Section 701.20 of the Standard Specifications.

Anticipated major operations for this standard: Construction of the upstream end of S.N. 011-2504.

The Contractor shall notify the Bureau of Traffic for inspection at least **72 hours in advance** of placing the signals in operation.

701326 This standard is appropriate for use during construction or removal of base course widening, temporary pavements, gutter or stabilized shoulders. All work performed utilizing this traffic control application will not be paid for separately, but shall be included in the cost for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum.

Anticipated major operations for application of this standard: Construction of pavement widening adjacent to US 51 pavement open to traffic for stage construction and crossovers.

701401 This standard should be used when the Contractor's work will encroach on the lane adjacent to the shoulder or on the shoulder within 24" of the edge of pavement of a completed 4 lane section of US 51 and the encroachment shall last more than one day. Work performed for this traffic control application will not be paid for separately, but shall be included in the cost for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum.

Anticipated major operations for application of this standard: Removal of median crossovers and related shoulder construction on US 51.

701406 This standard should be used when the Contractor's work will encroach on the lane adjacent to the shoulder or on the shoulder within 24" of the edge of pavement of a completed 4 lane section of US 51 during day operations only. Work performed for this traffic control application will not be paid for separately, but shall be included in the cost for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum.

Anticipated major operations for application of this standard: HMA surfacing on the completed US 51 north bound lanes.

B.L.R. 21 This standard should be used on minor road closures when the construction operations require that the existing roadway be closed. All closures performed utilizing this traffic control application will be included in the cost for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum.

Anticipated major operations for application of this standard: Temporary closure of all township and county roads

Limitations of Construction: The Contractor shall coordinate the items of work in order to keep hazards and traffic inconveniences to a minimum, as specified below.

During the construction of this improvement on FAP 322 (US 51), the roadway shall be kept open to at least two-lane two-way traffic at all times except as shown in the plans and as described herein, in accordance with the applicable portions of the Standard Specifications.

Prior to beginning any work, the Contractor shall erect break away post mounted "Road Construction Ahead" signs, 20-1(O)48 at both ends of the project and at all side roads within the limits of this section.

The Contractor shall provide, erect, and maintain all the necessary barricades, cones, drums, and lights for the warning and protection of traffic, as required by Sections 107 and 701 through 703 of the Standard Specifications, and as modified.

The Contractor shall be responsible for the traffic devices at all times during the construction activities and throughout any winter shutdown periods.

The Contractor shall follow the sequence of construction shown in the plans. If the Contractor must deviate from this schedule to permit the construction of this section with the least inconvenience to the travelling public, written permission must be granted by the Engineer.

The Contractor shall contact the District 6 Operations for "No Passing Zone" field verification.

All debris shall be removed from the pavement and shoulders prior to removal of traffic control.

Sign posts must be 4"x4" wood posts according to Article 1007.05. The use of metal posts will not be permitted.

All required fluorescent orange signs shall be 48 x 48 inches on this project unless otherwise noted in the plans.

All staggered Type III barricades shall be equipped with bi-directional steady burning Type A lights and have high intensity striping on both sides.

In addition to the flagmen required by the various standards, additional flagmen shall be provided by the Contractor, if required by the Engineer. Additional flagmen shall be paid for in accordance with article 109.04 of the Standard Specifications. Flagmen will be required whenever a lane is closed.

In addition to the signs required under various traffic control standards, "Uneven Lanes" signs W8-11(O)48 will be required any time there is a difference in elevation at the centerline of the open roadway. The signs shall be placed just prior to the work that will result in the drop-off and shall remain in place until the drop-off is eliminated. These signs will not be paid for separately but cost considered included in the various traffic control and protection pay items.

In addition to the signs required under various traffic control standards, "Shoulder Drop-Off" signs W8-9a(O)48 shall be required any time there is a difference in elevation at the edge of pavement adjacent to an open roadway. The signs shall be placed just prior to the work that will result in the drop-off and shall remain in place until the drop-off is eliminated. These signs will not be paid for separately but cost considered included in the various traffic control and protection pay items.

Also, "Bump" signs W8-1(O)48 will be required at locations to be determined by the Engineer. These signs will not be paid for separately but cost considered included in the various traffic control and protection pay items.

The Contractor shall furnish and post-mount "Road Construction Next X Miles" signs G20-1(O)48 and when applicable, "No Passing Zone Not Striped Next X Miles" signs G20-1100(O)48 at the beginning of the project and as directed by the Engineer. "End of Construction" signs G20-2a(O)48 shall also be post-mounted in its proper place in accordance with Traffic Control and Protection Standard 701901.

Keeping Roads Open to Traffic: Traffic Control and Protection Standards included in these plans shall be installed and operational at all times during construction of this section. FAP 322 (US 51) shall be kept open at least two-lane two-way traffic at all times except as shown in the plans and as described herein, which will be controlled by flagmen, per Standards 701201, 701306, and 701326.

Barricades and Signing for Sideroad Closure and Partial Closure: Prior to any construction activities of a sideroad, Type III barricades with "Road Closed to All Thru Traffic" signs (R11-4-4830) in accordance with BLR Standard 22 shall be placed at the first township or county road intersections located in opposite direction of the mainline as directed by the Engineer.

When the distance to the nearest crossroad intersection closure is more than 2000', an extra set of R11-3(6030) signs will be required mounted on NCHRP-350 approved sign stands or Type III barricades with steady burning lights.

Type III barricades with "Road Closed" signs (R11-2-4830), in accordance with BLR Standard 21, shall be placed on the limits of improvement of each township or county road, when total closure is required.

Type III Barricades with "Road Closed to All Thru Traffic" signs (R11-4-6030) shall be installed on the mainline northbound and/or southbound lanes and/or existing US 51 (once closed to traffic) as directed by the Engineer at side road intersections on the mainline where access is to be provided to private or field entrances as shown in the plans or directed by the Engineer. These barricades shall be staggered to allow access for farm equipment.

Rural side roads may be temporarily closed for the purpose of constructing the roadway realignment. **At no time shall the township or county road directly north and south of a side road closed to thru traffic be closed to thru traffic also.** All road closures shall be coordinated with the Resident Engineer, Christian County Highway Department, Prairieton and Assumption Township Road Districts, Emergency Response Districts, all affected School Districts, and the United States Post Office.

Side road closure shall be limited to June 15th through August 31st. No individual road closure will be for a period greater than 7 consecutive calendar days from the day the roadway is officially closed unless written approval of the local agency having jurisdiction of the roadway is provided. These requirements apply to the following roads:

- TR 268 (E600N) east leg with TR 304 (2610E)
- TR 273 (E700N) east leg
- TR 255 (E800N)
- TR 257 (E800N)
- TR 243 (E900N)

The west leg of TR 268 (E600N) shall be constructed with S.N. 011-2504 prior to any of the Stage 1 construction south of Station 433+00. Closure of TR 268 (E600N) will be a maximum of 45 calendar days.

The west leg of TR 273 (E700N) shall be constructed at the end of the Stage 1 period for the area south of Station 433+00. Closure of the west leg of TR 273 (E700N) will be a maximum of 30 calendar days.

Barricading Mainline Pregrade and Final Grade after Completion of Sideroad Improvements: Type III Barricades with "Road Closed" signs (R11-2-4830) shall be installed on the mainline lanes at all sideroads and entrances where access is to be provided as directed by the Engineer.

Type III Barricades with "Road Closed to Thru Traffic" signs (R11-4-4860) shall be installed on the mainline lanes at sideroad intersections where access is to be provided as directed by the Engineer. These barricades shall be staggered to allow access for farm equipment.

Suitable Access: All commercial, private, and field entrances which are part of this improvement shall have suitable access, as determined by the Engineer, at all times during construction of this project. Estimated quantities of Aggregate for Temporary Access have been included in the plans for this purpose. The Engineer will determine the amount and when to place the aggregate. The Contractor shall begin placement of the aggregate within 2 hours of notice to proceed from the Engineer or he/she will be liable for liquidated damages in accordance with Article 108.09 of the Standard Specifications.

Access to Commercial and Residential Properties: All commercial, private, and field entrances shall have all weather access at all times and be stage constructed. All weather access shall be a minimum of 10.0 foot wide. The Contractor may not deviate from this provision, except when he/she has written permission from the owner/tenant to cut off access to their property for a specific period of time.

Sequence of Construction for FAP Route 322 (US 51): The Contractor is responsible for planning and executing the construction which shall be subject to the approval of the Engineer. At all times US 51 shall be open to a minimum of two-lane two-way traffic at all times except as shown in the plans and as described herein. Day Only Operations will be permitted. For the Contractor's convenience, a schedule of staging operations for the project has been listed below for the Contractor's use and reference to the plan notes:

Pre-Stage 1:

- Install erosion control devices as required prior to beginning construction activities.
- Existing topsoil (including prairie topsoil) shall be excavated and stockpiled for future re-spreading.
- Before beginning work activities for this stage, coordinate all side road construction such that only one side-road is closed to traffic at one time. Construction activities will need to be coordinated in advance with the Engineer, Christian County Highway Department, and all Road District Commissioners as appropriate.

Stage 1-A:

- Realign the Main Drainage Ditch from Station 1237+20 (Ex US 51) to Station 242+90 (Ex US 51).
- Cut new roadway ditch from Station 1236+90 LT (Ex US 51) to 1240+90 LT (Ex US 51).
- Construct temporary pipe culvert at Station 362+30 RT across Existing US 51.
- Construct widening on the east side of Existing US 51 from Station 1231+90.7 (Ex US 51) to Station 244+27.9 (Ex US 51).
- Install temporary striping, impact attenuators, concrete barriers, and soil retention system in order to begin excavation for the downstream end of S.N. 011-2504.
- Shift two-way US 51 traffic to the east from Station 1231+90.7 (Ex US 51) to Station 244+27.9 (Ex US 51).
- Construct downstream end of S.N. 011-2504.

Stage 1-B:

- Construct widening on the west side of Existing US 51 from Station 1235+92.9 (Ex US 51) to Station 244+78.1 (Ex Us 51)
- Close the west leg of TR 268 to traffic.
- Close the east leg of TR 268 from Existing US 51 to the intersection with TR 304 and detour traffic from TR 268 onto TR 304.
- Install temporary traffic signals; relocate temporary impact attenuators and concrete barriers.
- Shift traffic onto the widening over the downstream end of S.N. 011-2504.
- Construct upstream end of S.N. 011-2504.
- Construct S.N. 011-3413.

Stage 1-C:

- Construct US 51 Relocation over the upstream end of S.N. 011-2504.
- Remove temporary traffic signals, impact attenuators and concrete barriers.
- Move two-way traffic onto the US 51 Relocation.
- Complete Main Drainage Ditch relocation through S.N. 011-2504 and S.N. 01-3413, and up to Station 374+75 RT.

Stage 1:

- Fill existing S.N. 011-2008 under Existing US 51.
- Construct grading, paving (without HMA surface), and drainage structures of US 51 south bound lanes from Station 329+00 to Station 427+50.
- Construct grading, paving (without HMA surface), and drainage structures of US 51 north bound lanes from Station 433+00 to Station 555+00 (construction may continue into Stage 2).
- Construct S.N. 011-0038 carrying US 51 over the Main Drainage Ditch (construction may continue into Stage 2).
- Construct S.N. 011-3362 carrying TR 255 over the Main Drainage Ditch.
- Construct grading, paving, and drainage structures of the following side roads in the following recommended sequence:
 - a) TR 268 west leg.
 - b) TR 257.
 - c) TR 243 east leg.
 - d) TR 255.
 - e) TR 273 west leg.
- Construct grading, paving (without HMA surface), and drainage structures of Crossover "A".
- Construct grading, paving, and drainage structures of Crossover "B".
- Construct grading, paving, and drainage structures of Crossover "D" (construction may take place during Stage 2).
- Apply temporary pavement markings and signage for the Stage 2 traffic configuration.

Stage 2:

Note: Stage 2 may begin once all of the Stage 1 construction south of Station 433+00 is complete and TR 255/TR 257 is open to traffic.

- Switch US 51 traffic to the Stage 2 traffic pattern as shown in the Plans.
- Construct grading, paving (without HMA surface), and drainage structures of US 51 north bound lanes from Station 340+50 to Station 433+00.
- Construct grading, paving, and drainage structures of the following side roads in the following recommended sequence:
 - a) TR 273 east leg.
 - b) TR 268 east leg.
- Construct grading, paving, and drainage structures of US 51 profile adjustment.
- Apply temporary pavement markings and signage for the Stage 3 traffic configuration.

Stage 3:

- Switch US 51 traffic to the Stage 3 traffic pattern as shown in the Plans.
- Construct grading, paving, and drainage structures of US 51 south bound lanes from Station 427+50 to Station 564+66.
- Remove the existing US 51 crossover from Station 551+00 to 565+00.
- Construct HMA surface course on US 51 south bound lanes from Station 331+00 to 427+50.
 - Construct HMA surface course on Crossover "A".
 - Apply final pavement markings to US 51 south bound lanes.

Stage 4:

- Switch US 51 traffic to the Stage 4 traffic pattern as shown in the Plans.
- Construct HMA surface course on US 51 north bound lanes from Station 340+50 to 555+00.
- Mill and resurface US 51 south bound lanes from Station 564+66 to 573+90.
- Mill and resurface US 51 north bound lanes from Station 555+00 to 567+73.
- Remove Crossover "D".
- Apply final pavement markings to US 51 north bound lanes.

Proper pavement striping and signage shall be completed as determined by the Engineer, prior to diverting any traffic in any stage.

Basis of Payment: This work will be paid for as follows.

Traffic control and protection utilizing Standard 701321 will be paid for at the contract unit price per each for TRAFFIC CONTROL AND PROTECTION, STANDARD 701321

Traffic Control and Protection for this project (excluding Standard 701321) will be measured and paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL) Lump Sum. This price shall be payment in full for all labor, materials, transportation, signs, drums and barricades and included work necessary to furnish, install, maintain and remove all traffic control as shown in the plans and as required in these Special Provisions.

Traffic Control Surveillance will be measured and paid for as specified in the Standard Specifications.

Type III barricades that will remain in place upon completion of the project will be paid for separately. All temporary Type III barricades will not be paid for separately, but cost to be included in the contract unit bid prices of the traffic control and protection pay items as listed above.

Temporary bridge signals, temporary concrete barriers and necessary relocation, temporary impact attenuators and necessary relocation will be paid for separately.

All permanent signing will be paid for separately.

All pavement markings will be paid for separately.

All other traffic control and protection required will not be measured for payment.

TEMPORARY BRIDGE TRAFFIC SIGNALS

This work shall consist of furnishing, installing, maintaining, and removing temporary traffic signals in accordance with Standard 701321, applicable portions of Section 701 of the Standard Specifications, as shown in the plans, and as directed by the Engineer with the following exceptions.

The detector loop placement shall be in accordance with the IDOT District 6 Temporary Bridge Traffic Signal Loop Placement Detail Sheet included in the plans. The near loops shall have separate lead-in wires and shall be spliced together and tied into the same detector amplifier in the temporary controller cabinet. This detector amplifier shall be programmed with eight (8) seconds of delay time. The temporary controller cabinet shall inhibit this delay time during green. The far loop shall be landed under a separate detector amplifier.

Alternative methods of detection such as microwave sensors, video detection or preformed loops may be used for side approaches where pavement conditions are not adequate for the construction of standard inductive loops.

A three-inch (3") wide strip of retro reflective sheeting shall be applied to the outside perimeter of the face of all traffic signal back plates. The reflective tape shall be fluorescent yellow in color and shall consist of type AZ sheeting.

The Contractor shall notify the Engineer at least 72 hours in advance of activating the temporary signals. IDOT District 6 Operations Traffic Signal Section shall be contacted at (217) 524-9161 for controller programming and timing assistance.

This work shall be paid for at the contract unit price per each for TEMPORARY BRIDGE TRAFFIC SIGNALS, where each is measured by a temporary bridge traffic signal system complete consisting of multiple signal face locations operated by a common control unit.

Any relocation of the traffic signal equipment due to stage construction will not be paid for separately, but shall be included in the cost of the initial installation.

INTERIM COMPLETION DATE

The contractor shall meet the following interim completion dates:

- All temporary and permanent seeding shall be completed by October 1 for each of the respective years. Highly erodible areas shall not be disturbed again until after the winter shut down periods as determined by the Engineer.
- All staging work required to construct S.N. 011-2504 shall be completed in 60 consecutive calendar days. It is suggested that the work be performed during the June to August time period to avoid conflicts with farming operations and school buses.

If the Contractor fails to complete the required work by the completion date, he/she shall be liable to the Department for liquidated damages in accordance with Article 108.09 of the Standard Specifications and any other additional special provision which may be attached herein which supplements Article 108.09. The Contractor will also be liable for additional items or work made necessary by not meeting the completion date or additional working days allowed. Such items include, but are not restricted to, temporary pavement marking, temporary erosion control, and temporary seeding.

PERMANENT BARRICADES

This item of work consists of the Contractor furnishing and placing directional barricades in the vicinity of the crossover as shown in the signing and striping plans and as directed by the Engineer.

This work will be in accordance with the applicable portions of Sections 701 of the Standard Specifications and Highway Standard 701901.

The directional barricades shall be furnished in new condition to the satisfaction of the Engineer. They shall be left in place at the end of construction and will be removed under a future contract and become the property of IDOT. The barricades shall be sufficiently weighted to prevent movement by wind or traffic throughout an extended period of time.

The appropriate sign shall be attached to the barricade in a manner approved by the Engineer.

This item will be measured in place and paid for at the contract unit price per each for PERMANENT BARRICADES which price shall be payment in full for all labor, equipment, and materials required to complete this item as specified.

REMOVE PERMANENT BARRICADES

This item of work consists of the Contractor removing barricades and barricade signage at the locations where the previous contract left barricades in place for temporary traffic control.

The barricades shall be removed at the proper time according to the staging plan as directed by the Engineer. These barricades shall be stock piled on the job at a location as directed by the Engineer. The Engineer shall contact District Six Operations, Sign Shop, at (217) 785-0288, to have the barricades and signs picked up and removed from the job site.

Pavement repair shall include filling any holes or defects in the existing pavement caused by the barricades with a method approved by the Engineer.

This item will be paid for at the contract unit price per lump sum for REMOVE PERMANENT BARRICADES which price shall be payment in full for labor and equipment required to complete this item as specified.

Where the pavement repair requires pavement removal or resurfacing work will be paid for in accordance with Article 109.04 of the Standard Specifications.

CONSTRUCTION ACCESS

The Engineer shall determine the locations where construction machinery and vehicles may enter into the US 51 pavement from the construction site. Preferred locations shall be off of the sideroads, service drives, and the existing US 51 roadway once traffic has been rerouted to the new pavement.

These construction entrances shall consist of a minimum of 100 feet of stabilized material. These entrances are to minimize the amount of dirt and debris tracked onto traffic lanes in use. The cost of furnishing, constructing, and maintaining these entrances shall be incidental to the contract.

“Trucks Entering and Leaving Highway” warning signs, (W21-1104/105) 48” x 48” in size and fluorescent orange in color, shall be placed a minimum of 100 feet prior to any construction entrance and the intersection with a sideroad having a construction entrance and as directed by the Engineer. These warning signs shall remain the property of the Contractor and will not be measured for payment.

CONTACTS

The Contractor will be required to coordinate all maintenance of traffic operations with all municipality, township and county entities within the project limits. The following are the contacts for the Christian County Highway Department and the Assumption and Prairieton Township Road Districts:

<u>Assumption Township</u>	<u>Prairieton Township</u>	<u>Christian County</u>
Paul Berner – Road Com.	Edward Craig – Road Com.	Clifford Frye – County Engineer
1253 N. 2500 East Road	1801 N. 2400 East Road	1000 North Cheney Street
Assumption, IL 62510	Moweaqua, IL 62550	Taylorville, IL 62568
(217) 226-4333	(217) 768-4759	(217) 824-2606

STATUS OF UTILITIES TO BE ADJUSTED

Add the following after the first paragraph of Article 105.07 of the Standard Specifications:

Underground utilities have been plotted from available surveys and records and, therefore, their locations must be considered approximate only. There also may be utilities for which the locations are unknown. Verification of locations of underground utilities, shown or not shown, will be the responsibility of the Contractor.

Additional utility information may be obtained by calling the “Joint Utility Location Information for Excavators” phone number, 800-892-0123 or 811.

The following utilities are involved in this project. T

<u>Name & Address of Utility</u>	<u>Type</u>	<u>Location</u>	<u>Estimated Date of Relocated Completed</u>
Mr. Doug Sowers ILL Consolidated Communications Telephone Company 121 South 17 th Street Mattoon, IL 61938 Phone: 217-235-4419 Cell: 217-820-9905	Telephone	Throughout Project	July 6, 2013
Mr. Tom Long SBC/ Ameritech 990 South Side Drive Decatur, IL 62526 Phone: 217-429-8596 Pager: 252-3541	Telephone	Throughout Project	July 6, 2013
Mr. Jim Matlock Shelby Electric Cooperative Route 128 & North Sixth Street P.O. Box 560 Shelbyville, Illinois 62565 Phone : 774-3986	Electric	Project Throughout	July 6, 2013
Mr. Clint Frederick AmerenCIPS 420 N. 2400 East Road. Pana, Illinois 62557 Phone : 562-1441 Ext. 22441 Fax No : 562-1406 Cellular : 246-0213 cfrederick@ameren.com Jill- 562-1433	Electric	Project Throughout	July 6, 2013
Mr. Jacob Colbert Ameren Illinois 370 South Main Street, MC D-50 Decatur, IL 62523 Phone: 217-424-6645 Cell: 1-217-412-8639 Email: jcolbert@ameren.com	Gas	Project Throughout	July 6, 2013
Mr. Larry Repscher New Wave Communications 1176 East 1500 North Road Taylorville, IL 62568 Phone: 1-217-287-7992 Cell: 1-217-823-4038	Cable	Project Throughout	July 6, 2013

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Articles 105.07, 107.20, 107.31, 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. If any utility adjustments or relocations have not been completed by the above dates specified and when required by the Contractor's operations after these dates, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's critical path schedule is affected.

GEOTECHNICAL DATA

A subsurface investigation has been performed for this project. Geotechnical data including boring logs and laboratory test results are available for Contractor review prior to bidding. The data can be reviewed at the District 6 Annex located at 2713 Stevenson Drive in Springfield. Contact the District Geotechnical Engineer at 217-782-6709.

EMBANKMENT 05/28/10

Embankments shall be constructed according to Section 205 of the Standard Specifications, except as modified by this Special Provision.

When embankments are to be constructed on hillsides or existing slopes which are steeper than 3H:1V, steps shall be cut into the existing slope as shown in the plans or as directed by the Engineer.

All material proposed for use in embankment construction shall be approved by the Engineer. Soils exhibiting the following properties shall not be allowed:

Standard Dry Density (AASHTO T 99) less than 90 pcf.
Organic Content (AASHTO T 194) greater than 10 percent.
Liquid Limit (AASHTO T 89) greater than 60.

Soils exhibiting the following properties shall be restricted to the interior of the embankment:

Less than 35% passing the #200 sieve.
Liquid Limit (AASHTO T 89) greater than 50 but less than 60.
Plasticity Index (AASHTO T 90) less than 12.

The Engineer may restrict or prohibit the use of materials other than those identified above, which exhibit potential for significant erosion or excessive volume change.

Restricted soils shall be encapsulated by 6 to 8 feet, measured horizontally, of unrestricted soil as shown in the plans or directed by the Engineer. The encapsulation shall be placed concurrently with restricted soils. The difference in elevation between the restricted soil and the encapsulation shall not exceed 3 feet without the Engineer's approval. Topsoil or rip rap shall not be included in the encapsulation.

The quantity and size of stones or rock fragments incorporated with soil materials shall not prevent placement in the required lift thickness, diskings, or achieving uniform compaction. If the Engineer determines the rock material quantity and gradation minimizes potential void formation and the soil quantity is insufficient to affect performance, the material may be considered rock embankment. Rock embankment shall be placed in 12 inch lifts. Lifts shall be compacted or seated using a method approved by the Engineer. Shale shall be placed, broken down, and compacted in the same manner as soil. The addition of water may be required to break down shale.

Where lime modified soil is shown on the plans, materials placed in the top 2 feet of embankments shall have a clay content greater than or equal to 15% over the width of improved subgrade. Clay is defined according to AASHTO M 145. Clay content shall be determined according to AASHTO T 88. In addition to the clay content requirement, no rock, stones or broken concrete more than 2 inches in largest dimension shall be allowed in the top 2 feet.

All embankment lifts shall be compacted to not less than 95% of the standard laboratory density. The standard laboratory density shall be the maximum dry density determined according to AASHTO T 99 (Method C) or AASHTO T 272.

If embankment lifts are unstable after achieving the required density, the Contractor shall reprocess and compact the unstable material as directed by the Engineer. The Engineer may determine a maximum moisture content to correct or prevent stability problems during embankment construction.

This work will not be paid for separately, but shall be considered included in the unit prices for EARTH EXCAVATION, BORROW, and/or FURNISHED EXCAVATION.

CLEARING

This work shall consist of the removal and disposal of all obstructions such as fences, riprap, walls, foundations, accumulations of rubbish of whatever nature, logs, shrubs, saplings, grass, weeds, and other vegetation and stumps of a diameter less than 6" not paid for specifically in the plans. The removal shall be in accordance with Section 201 of the Standard Specifications.

This work shall be considered as included in the contract unit price per cubic yard for EARTH EXCAVATION.

GRADING

Grading shall be done by hand around light poles, utility poles, sign posts, existing shrubs and trees, or other man-made objects where shallow fill or cuts are adjacent to the items. The decision as to if items are to remain in place or not shall be as directed by the Engineer.

This work shall be considered as included in the contract unit price per cubic yard for EARTH EXCAVATION.

EARTH EXCAVATION

This work shall consist of excavating earth, gravel, hot-mix asphalt, etc., in accordance with Section 202 of the Standard Specifications. Work includes cutting or filling to the subgrade limits shown in the plans.

This work shall also consist of the removal and disposal of all oil and chip pavements, paved driveway pavement, sidewalk, debris, brush, fence, riprap, stone, concrete slabs, etc., not paid for specifically in the plans.

This work shall be considered as included in the contract unit price per cubic yard for EARTH EXCAVATION.

PREPARING EXISTING GROUND SURFACE IN EXISTING DITCHES

This work shall consist of removing and disposing of sediment and debris of varying depths, from existing roadside ditches, as directed by the Engineer in locations of proposed embankment directly under the proposed roadway (pavement and shoulder area).

Existing roadside ditches that lie within the limits of the proposed roadbed shall be undercut to remove the loose, organic debris down to a compatible soil as directed by the Engineer.

The material removed shall be spread out, and dried to be used in areas of embankment construction.

Revise Article 202.07 and 202.08: This work will not be measured or paid for separately but shall be considered as part of the requirement for preparing existing ground surface.

EARTH EXCAVATION (WIDENING)

This work shall consist of the excavation and removal of all existing earth, aggregate, asphalt shoulders, etc. for the construction of base course widening in accordance with applicable portions of Section 202 of the Standard Specifications, as shown in the plans, and as directed by the Engineer.

Excavation for widening shall be measured for payment to the limits and thickness of the widening and volume computed in cubic yards.

This work shall be paid for at the contract unit price per cubic yard for EARTH EXCAVATION.

CHANNEL EXCAVATION

This work shall consist of the removal and satisfactory disposal of all materials encountered in the cutting to subgrade within the limits of the proposed structure in accordance with Section 203 of the Standard Specifications and as directed by the Engineer.

The limits of channel excavation shall extend for the length of the proposed structure from face to face of abutments and for the width of the proposed structure. All other excavation shall be considered as being included in the contract unit price per cubic yard for Earth Excavation.

The excavated bed for riprap is included in the contract unit price per square yard for STONE RIPRAP or STONE DUMPED RIPRAP, of the class specified.

This work will be paid for at the contract unit price per cubic yard for CHANNEL EXCAVATION.

GRADING AND SHAPING DITCHES

This work shall consist of furnishing all labor, materials, and equipment necessary for grading and shaping ditches to improve drainage and/or to removed existing erosion gullies on side slopes and in ditches and dispose of excess excavation beyond the labeled limit of improvements in accordance with applicable portions of Section 214 of the Standard Specifications and as directed by the Engineer.

Prior to beginning any grading work, the Engineer will determine and layout the proposed ditch grades. Excavation should be anticipated to be between 2.0' and 4.0' along the entire ditch grading length. Side slopes shall be shaped to blend the proposed grading into the existing slopes not to exceed 1:3 on the foreslopes and 1:2 on the backslopes. Excavated material shall be disposed of outside the right-of-way or wasted on existing backslopes within the right-of-way at locations approved by the Engineer.

This work will be paid for at the contract unit price per foot for GRADING AND SHAPING DITCHES.

TOPSOIL FURNISH AND PLACE

Revise the third paragraph of Article 211.07(b) of the Standard Specifications to read:

“Topsoil furnish and place, and compost furnish and place shall be that material obtained from inside or outside the right-of-way and will be measured in square yards (square meters). Topsoil furnish and place shall include the excavating, hauling, and stockpiling of the material in the locations approved by the Engineer.”

MITIGATION AREA SEEDING

As required by the Stream Mitigation Plan, this item shall consist of over seeding (seeding again) in accordance with Section 250 of the Standard Specifications and as directed by the Engineer.

The mitigation areas will be seeded with Class 2 for immediate turf then over seeded with Class 5 at a later time as directed by the Engineer. Prior to over seeding areas will need to be mowed.

The width of over seeding shall be from 20' off of the edge of shoulder to the proposed right-of-way at the following locations:

- 1) Left side station 362+00 to station 381+25
- 2) Right side station 363+17 to station 388+00

This work will be paid for at the contract unit price per acre for SEEDING, CLASS 5 which price shall include mowing.

Seeding, Class 2 will be measured and paid for separately in accordance with Section 250 of the Standard Specifications.

REMOVAL OF EROSION CONTROL ITEMS

This work shall include all labor and equipment necessary to remove and dispose of all temporary erosion control measures including riprap associated with stage construction. This work shall be done in accordance with Section 202 of the Standard Specifications and as directed by the Engineer.

This work will not be paid for separately, but shall be included in the contract unit price per cubic yard for EARTH EXCAVATION.

CONTROLLED LOW-STRENGTH MATERIAL

This work shall consist of furnishing and placing controlled low-strength material to fill existing pipes to remain in place in accordance with Section 593 of the Standard Specifications, at locations shown in the plans, and as directed by the Engineer.

Plugging these pipes will be measured and paid for separately.

This work shall be paid for at the contract unit price per cubic yard for CONTROLLED LOW-STRENGTH MATERIAL.

PLUG EXISTING CULVERTS

This work shall consist of plugging existing culverts noted and located on the plans and as specified herein.

The ends of the culvert shall be excavated, if necessary, to the bottom flowline and to a minimum of 18" inside the barrel of the culvert. The inside of the culvert at the excavated ends shall be cleaned of all earth and debris to the satisfaction of the Engineer.

The Contractor shall construct a suitable permanent or temporary bulkhead at the opening of the downstream end of the culvert consisting of mortared concrete masonry blocks; a cured Class SI Concrete plug; or forms and bracing capable of containing the proposed Controlled Low-Strength Material in accordance to Section 593 of the Standard Specifications.

A suitable partial or offset bulkhead shall be constructed at the upstream end of the culvert with an opening large enough for the conveyance equipment to access the culvert barrel. Suitable forms and bracing may also be installed at the upstream end of the culvert near the end of the filling operations.

The cost of cleaning the culvert ends and constructing suitable permanent or temporary bulkheads at the upstream and downstream ends of the culvert will be paid for at the contract unit price per each for PLUG EXISTING CULVERTS which price shall include both the upstream and downstream ends.

Controlled Low-Strength Material will be paid for separately.

PAVEMENT REMOVAL

This work shall consist of saw cutting, removing and the satisfactory disposal of the existing hot-mix asphalt and portland cement concrete pavement in accordance with applicable provisions of Section 440 of the Standard Specifications and as shown on the plans.

Existing paved shoulders adjacent to pavement that is to be removed shall be included in the pavement removal area.

Required saw cuts shall not be measured for payment.

Removal of oil and chip pavement shall not be measured for payment.

This work will be paid for at the contract unit price per square yard for PAVEMENT REMOVAL which price includes the cost of the saw cuts.

PAVEMENT BREAKING

This work shall consist of breaking the existing pavement into pieces when the depth between the top of the existing pavement and the bottom of the proposed pavement is less than 36" and greater than 16". This work shall be in accordance with applicable provisions of Section 205 of the Standard Specifications, as shown on the plans, and as directed by the Engineer.

The existing pavement shall be broken into pieces not to exceed 3 square feet in surface area.

This work will be paid for at the contract unit price per square yard for PAVEMENT BREAKING.

HOT-MIX ASPHALT SURFACE REMOVAL

This work shall consist of the removal of hot-mix asphalt (HMA) surfaces in preparation for subsequent resurfacing in accordance with applicable provisions of Section 440 of the Standard Specifications and specified herein.

The Contractor shall make a saw cut at the ends of the surface removal equal to the depth of the surface removal. The saw cut shall be straight and perpendicular.

Required saw cuts and butt joints shall not be measured for payment.

This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, of the thickness specified, which price includes the cost of the saw cuts.

SIDEWALK REMOVAL

This work shall consist of saw cutting, removing and the satisfactory disposal of the existing concrete sidewalk in accordance with applicable provisions of Section 440 of the Standard Specifications and as shown on the plans.

Required saw cuts shall not be measured for payment. No adjustments shall be made for variations in thickness

This work will be paid for at the contract unit price per square foot for SIDEWALK REMOVAL which price includes the cost of the saw cuts.

PAVED SHOULDER REMOVAL

This work shall consist of saw cutting, removing and the satisfactory disposal of the existing hot-mix asphalt shoulder adjacent to existing pavement that is to remain in place in accordance with applicable provisions of Section 440 of the Standard Specifications and as shown on the plans.

Required saw cuts shall not be measured for payment.

This work will be paid for at the contract unit price per square yard for PAVED SHOULDER REMOVAL which price includes the cost of the saw cuts.

SAW CUTS

Saw cuts required for removal items shall not be paid for separately. The cost of the saw cuts will be included in the respective removal pay items.

TEMPORARY RAMP

This work shall consist of constructing temporary hot-mix asphalt ramps in accordance with Section 406.08 of the Standard Specifications, as shown in the plans, and as directed by the Engineer. This item shall include furnishing, maintaining, and removing the hot-mix asphalt required for the temporary ramp.

This work will be paid for at the contract unit price per square yard for TEMPORARY RAMP.

REMOVAL OF EXISTING STRUCTURES

This work shall consist of the removal and satisfactory disposal of existing reinforced concrete box culverts, headwalls, and any other miscellaneous structures in accordance with applicable portions of Section 501 of the Standard Specifications, as shown in the plans, and as directed by the Engineer. The structures are identified below:

Structure No.	Location	Description
1	US 51 Sta. 382+08.6, 89.3' Right	Concrete Spillway
2	US 51 Sta. 388+32.5, 58.3' Right	Concrete Retaining Wall
3	US 51 Sta. 415+17.1, 37.4' Right	2'x1.5' RCBC
4	US 51 Sta. 455+91.1, 32.5' Right	Concrete Foundation
5	US 51 Sta. 509+00.7, 49.3' Left	6'x4' RCBC
6	TR 268 Sta. 18+09.6, 103.9' Left	10'x4' RCBC

No additional compensation shall be given for the removal of headwalls, partial removal or variations in size from what is listed in the plans.

No additional compensation shall be given for partial removal due to stage construction.

This work shall be paid for at the contract unit price per each for REMOVAL OF EXISTING STRUCTURES of the number specified.

PIPE CULVERT REMOVAL

This work shall consist of the removal and satisfactory disposal of existing pipe culverts and any headwalls or end sections in accordance with applicable portions of Section 501 of the Standard Specifications, as shown in the plans, and as directed by the Engineer.

No additional compensation shall be given for the removal of headwalls or the variations in size from those stated in the plans.

No additional compensation shall be given for partial removal due to stage construction.

This work shall be paid for at the contract unit price per foot for PIPE CULVERT REMOVAL.

PRECAST CONCRETE BOX CULVERTS

This work shall consist of furnishing and constructing precast concrete box culverts in accordance with applicable portions of Section 540 of the Standard Specifications, as shown in the plans, and as directed by the Engineer.

This work shall be paid for at the contract unit price per foot for PRECAST CONCRETE BOX CULVERT of the size specified in the plans which price shall include all excavation, except in rock, materials, labor, and equipment necessary as specified in Section 540.08.

CONCRETE HEADWALL FOR PIPE DRAINS

This work shall consist of furnishing and constructing concrete headwalls for pipe underdrains (special) at the locations shown in the plans in accordance with Section 601 of the Standard Specifications except the following:

At any horizontal outlet location where more than one pipe underdrain (special) run is required, a concrete headwall will be required for each run.

This work shall be paid for at the contract unit price per each for CONCRETE HEADWALL FOR PIPE DRAINS.

GRANULAR CULVERT BACKFILL

This work consists of backfilling box culverts or box culvert removal locations with granular materials. This work shall be performed at locations shown on the plans or as directed by the Engineer.

Backfilling shall be performed according to Article 502.10. The backfill material shall meet the requirements of Article 1004.06, except the gradation shall be CA-06 or CA-10.

Granular Culvert Backfill will be measured for payment in cubic yards compacted in place.

Additional material required to backfill excavation outside the limits shown on the plans will not be measured for payment.

This work shall be paid for at the contract unit price per cubic yard for GRANULAR CULVERT BACKFILL.

ROCKFILL - FOUNDATION 6M10 2/17/12

This work consists of constructing a layer of rockfill below culverts or spread footings having unstable or unsuitable soil conditions. When shown on the plans, the rockfill limits and thickness shall be confirmed by the Engineer prior to excavating below the theoretical top of rockfill line.

Materials shall meet the requirements of the following Articles of the Standard Specifications:

Bedding or Capping Material 1003.04 or 1004.05

Rockfill materials other bedding and capping material shall be crushed stone or crushed concrete consisting of sound durable particles reasonably free of deleterious materials.

The gradation of rockfill shall be selected based on layer thickness as shown below:

Less than or equal to 1 ft Gradations with a max size of 4 inches^a

^a Gradations with a maximum size of 2 inches or smaller shall have less than 6% passing the No. 200 sieve.

Greater than 1 ft shall be RR 01 or according to the table below.

Grad No.	ROCKFILL GRADATIONS					
	Sieve Size and Percent Passing					
	8"	6"	4"	2"	#4	#200
CS 01	10	97 ± 3	90 ± 10	45 ± 25	20 ± 20	5 ± 5
CS 02		100	80 ± 10	25 ± 15		

Excavation shall be performed according to Section 202 of the Standard Specifications.

The method of rockfill placement shall be approved by the Engineer. Rockfill shall be capped according to application as shown below:

- Spread Footing 4 to 6 inches CA-6
- Cast-In-Place Box Culverts 4 to 6 inches CA-7 or CA-11
- Pre-Cast Box Culverts Porous Granular Bedding Material (Article 540.02)
- Pre-Cast Pipe Culverts Coarse or Fine Aggregate Bedding (Article 542.04)

In spread footing applications, the CA-6 cap shall be compacted to the satisfaction of the Engineer. No compaction of rockfill is required for culvert applications.

This work will be measured and paid for at the contract unit price per ton for ROCKFILL - FOUNDATION. The contract price for ROCKFILL-FOUNDATION shall include excavation, aggregate materials, aggregate material placement, and placement of excavated materials within right-of-way or disposal off right-of-way. *Excavation will not be measured or paid for separately or as part of EARTH EXCAVATION.* For precast concrete box culverts, porous granular bedding material and the excavation volume required for bedding will be paid for according to Article 540.08. For pipe culverts, the aggregate bedding material and excavation volume required for the aggregate bedding material will be paid for according to Article 542.11.

ROCKFILL – EMBANKMENT

This work consists of constructing a layer of rockfill to provide a stable platform for earth embankment construction. When shown on the plans, the rockfill limits and thickness shall be confirmed by the Engineer prior to starting this work.

When shown on the plans, the rockfill limits and thickness shall be confirmed by the Engineer prior to placing rockfill or excavating below the theoretical top or rockfill line. When directed by the Engineer, ditches shall be cut to plan grade and the existing ground shall be disked to a depth of 12 inches each day for three consecutive drying days prior to determining rockfill limits.

Rockfill materials shall meet the requirements of Article 1005.01 of the Standard Specifications. The gradation of rockfill shall be primary crusher run. Shot rock may be used in rockfill layers exceeding 2 ft thick. The maximum shot rock dimension shall be 18 inches. All rockfill shall be well graded. Rockfill may contain broken pavement or rock excavation with the approval of the Engineer.

Where shown on the plans or directed by the Engineer, excavation shall be performed according to Section 202 of the Standard Specifications. Excavated material may be placed in fills according to Article 202.03 with the approval of the Engineer.

Rockfill shall be placed starting at one end of the designated area and advancing from previously placed material. No compaction of rockfill is required. When rockfill is placed above the existing ground line, the slope shall be capped with a minimum of 2 ft of unrestricted soil measured horizontally. Rockfill shall not be incorporated within the top 2 ft of embankments unless shown on the plans or approved by the Engineer.

This work will be measured and paid for at the contract unit price per ton for ROCKFILL – EMBANKMENT.

EARTH EXCAVATION (ROCKFILL) 6M2 02/17/12

This work shall consist of any earth excavation required for placement of AGGREGATE IMPROVED SUBGRADE or ROCKFILL-EMBANKMENT. When shown on the plans, the excavation limits and thickness shall be confirmed by the Engineer prior to excavating below the theoretical top of aggregate line. Excavation shall be performed according to Section 202 of the Standard Specifications. This work will be measured for payment according to Article 202.07. This work will be paid for at the contract unit price per cubic yard for EARTH EXCAVATION (ROCKFILL). This price shall include the disposal of all surplus, unstable, and unsuitable materials not placed within the right-of-way.

ENGINEER'S FIELD LABORATORY 7/23/03

In addition to the items listed in Article 670.05, the Contractor shall furnish a 20± inch box fan and a microwave oven having a variable power output up to at least 700 watts. The microwave oven shall enable the operator to directly input cooking time.

These items will not be paid for separately, but shall be included in the unit price per calendar month for ENGINEER'S FIELD LABORATORY.

SETTLEMENT WAITING PERIOD AND SETTLEMENT PLATFORMS

A settlement waiting period of 4 months required between embankment completion to finish earth grade and the start of US 51 mainline HMA Base Course Paving operations. A waiting period of 6 months is required for HMA Surface Course paving. The waiting period applies to stage 1 & 3 construction between Station 366+00 and Station 368+50.

The Contractor shall install a settlement platforms according to Section 204.06 at approximately Station 367+12 offset 64 feet left and Station 367+15 offset 30 feet right as directed by the Engineer.

Paving will be allowed before the end of the 4 month waiting period if the Engineer determines settlement is complete. Settlement platform data shall be gathered on a weekly basis.

This work will not be paid for separately, but shall be included in the contract unit price for EARTH EXCAVATION, BORROW, and/or FURNISHED EXCAVATION.

BRIDGE APPROACH PAVEMENT CONSTRUCTION SEQUENCE

Construction of the concrete pad, bridge approach pavement, and bridge approach pavement transition or flexible pavement connector shall be performed in the sequence described below. The purpose of this sequence is to minimize the potential for bridge approach pavement settlement.

1. New embankment shall be completed to finished earth grade between the plan limits of abutment excavation and a point 300 feet behind the abutment.
2. A minimum waiting period of 4 months shall elapse between the completion of embankment and excavation for the approach pavement concrete pad.
 - 2a. An additional settlement waiting period may be included in a separate Settlement Waiting Period special provision. The 4 month period described in item 2 is considered part of the total settlement waiting period.
 - 2b. When paving in the vicinity of the structure will not immediately follow the waiting periods described in items 2 and 2a, the waiting period should be extended until 2 weeks prior to paving.
3. Excavation for the concrete pad and concrete pad construction shall be performed.
4. Bridge approach pavement and transition/connector pavement shall be constructed.

The waiting period described in items 2, 2a, and 2b does not apply to lime modification beneath the bridge approach transition/connector pavement. However, the lime modified soil shall not be trimmed until the end of the waiting period. The waiting period may be reduced by the Engineer based on settlement platform data.

This work will not be paid for separately but shall be included in the contract unit price for Bridge Approach Pavement. Settlement platforms will not be paid for separately but shall be included in the contract price for pay items associated with fill placement.

GROUND STABILIZATION GEOSYNTHETIC

This work includes furnishing geosynthetic materials and placing them on unstable ground surfaces at locations shown in the plans or as directed by the Engineer. This work is typically performed prior to the placement of a granular blanket consisting of rockfill or other specified aggregate gradation.

Geosynthetic materials shall consist of a dimensionally stable geogrid or woven geotextile made of polypropylene, polyethylene, or polyester. Geosynthetics shall meet the following physical requirements:

Physical Property	
Minimum Tensile Strength at 5% Strain ¹ , lb/ft	500
Geotextile Puncture Resistance, lbs (ASTM D 4833)	100
Geogrid Junction Strength Efficiency, % (GRI:GG2)	80
Geogrid Nominal Aperture Dimensions, Min / Max, in.	0.8 / 1.6

¹For Geotextile, use test method ASTM D 4595. For Geogrid, use test method ASTM D 6637. **Minimum tensile strength is in the weakest principle direction.**

All requirements represent the minimum average roll values (MARV). The manufacturer shall submit certification indicating the geosynthetic meets the requirements of this special provision. The certification shall identify manufacturer, product name, material composition, and test results (including test method).

Geosynthetic storage, ground preparation, geosynthetic placement, and aggregate placement shall be done according to Section 210 of the Standard Specifications.

Geosynthetic will be measured in place and paid for at the contract unit price per square yard for GROUND STABILIZATION GEOSYNTHETIC.

AGGREGATE SHOULDERS, TYPE B (SPECIAL)

This work shall consist of the construction of aggregate shoulders and aggregate shoulder wedges in accordance with Section 481 of the Standard Specifications, as detailed in the plans, and as directed by the Engineer. Where necessary around guardrail, the Contractor shall place and shape shoulder material manually to the satisfaction of the Engineer.

This work shall be paid for at the contract unit price per ton for AGGREGATE SHOULDERS, TYPE B (SPECIAL) which price shall include all labor, materials, and equipment necessary to complete the work to the satisfaction of the Engineer.

TEMPORARY ACCESS

This work includes all labor and materials required for constructing, maintaining, and removing temporary all-weather access to private entrances, field entrances, commercial entrances, and side roads along the project. This work will include furnishing and installing additional aggregate as construction activities alter the grade. This work shall be done in accordance with the details shown in the plans and/or directed by the Engineer.

The aggregate used for field, private, and commercial entrances shall have a gradation of CA 6 aggregate conforming to Section 1004 of the Standard Specifications. A minimum thickness of 6 inches of aggregate shall be provided for temporary access at field, private, and commercial entrances. A minimum width of 24' shall be provided for commercial entrances. A minimum width of 16' shall be provided for field and private entrances.

Aggregate may be used for access to side roads during construction of the US 51 embankment. The aggregate used for temporary access to side roads shall be in accordance with Section 402 of the Standard Specifications. The minimum thickness of the aggregate during construction of the embankment at the side road shall be 8 inches. Upon completion of the paving operations for the respective stage of construction the side road temporary access shall be a minimum of 2 inches of HMA surface and 8 1/2 inches of HMA base course. The minimum width of the temporary access for side roads shall be 32 feet or as shown in the plans. Aggregate for temporary access at the side roads shall not replace the 12 inches of Aggregate Base Course, Type A used in place of the lime modified soil.

When use of the temporary access is discontinued, the surface aggregate used shall be removed and disposed of in accordance with Article 202.03 or with the approval of the Engineer it may be utilized in permanent construction.

Temporary access will be measured for payment on an each basis. Each temporary access at entrances and side roads shall only be measured once.

Aggregate for temporary access will be paid for separately.

Hot-mix asphalt surface and base course at side roads will be paid for separately.

Temporary pipe culverts will be paid for separately.

Service Drives shall be paid for as commercial entrances.

This work will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE); TEMPORARY ACCESS (FIELD ENTRANCE); TEMPORARY ACCESS (ROAD); and TEMPORARY ACCESS (COMMERCIAL ENTRANCE).

HOT-MIX ASPHALT FOR PATCHING POTHOLE (COLD MIX)

This work shall consist of filling potholes on roadways within this section with hot-mix asphalt cold mix. The material shall be approved by the Engineer.

This work shall be paid for at the contract unit price per ton for HOT-MIX ASPHALT FOR PATCHING POTHOLE (COLD MIX) which price shall include all materials, equipment, and labor required to complete this work, including all necessary traffic control items.

REMOVE EXISTING FLARED END SECTION

This work shall consist of the removal and satisfactory disposal of existing concrete flared end sections in accordance with applicable portions of Section 501 of the Standard Specifications as shown in the plans and as directed by the Engineer.

The existing precast concrete pipe culvert connected to the end section shall remain in place. Any damage to the remaining pipe culvert shall be repaired or replaced by the Contractor at his/her own expense and to the approval of the Engineer.

This work shall be paid for at the contract unit price per each for REMOVE EXISTING FLARED END SECTION.

STONE DUMPED RIPRAP

This work shall consist of excavating, disposing of excess excavation, furnishing, transporting, and placing riprap in ditches, channels and on side slopes at the locations shown in the plans and/or as directed by the Engineer and shaping side slopes on the sides of the riprap placement at locations as scheduled in the plans, in accordance with applicable portions of the Standard Specifications; and/or as directed by the Engineer.

Prior to beginning any grading work for the proposed riprap areas, the Engineer will determine and layout the proposed ditch grades. Side slopes shall be shaped to blend the proposed grading into the existing slopes not to exceed 1:3 on the foreslopes and 1:2 on the backslopes. Excavated material shall be disposed of outside the right-of-way or wasted on existing backslopes within the right-of-way at locations approved by the Engineer.

The riprap work shall be done in accordance with applicable portions of Section 281 of the Standard Specifications, with the following modifications:

<u>Gradation</u>	<u>Minimum Thickness</u>	<u>Bedding Thickness</u>
RR3	12"	----
RR4	12"	6"
RR5	18"	6"
RR6	18"	6"

Installation of filter fabric shall be required under gradation RR4, RR5 and RR6. Filter fabric shall be required under gradation RR 3 when it is placed in highly erodible soils as determined by the Engineer. Filter fabric shall be furnished and installed in accordance with Section 282 of the Standard Specifications.

This work will be paid for at the contract unit price per square yard for STONE DUMPED RIPRAP of the class and gradation specified. Excavation and aggregate bedding will not be measured or paid for separately, but considered as part of the contract unit bid price of the pay item described above.

Filter fabric will be paid for as specified in Section 282 of the Standard Specifications.

FILLING EXISTING WELLS

This work shall consist of furnishing all materials, labor, tools and equipment necessary to fill and seal the existing water wells as follows:

1. The sealing of abandoned wells shall be performed according to the Illinois Water Well Construction Code of the Department of Public Health.
2. The water wells shall be sealed by a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act.
3. The Department of Public Health shall be notified by telephone or in writing at least 48 hours prior to the commencement of any work to seal the water wells. The filling of the drilled wells shall be performed under the supervision of a well inspector of the Department of Public Health.
4. Two properly executed and notarized Water Well Sealing Forms, of the Department of Public Health, are required. One is to be filed with the Division of Environmental Health, Department of Public Health at Springfield, and one copy with the Illinois Department of Transportation – District 6.
5. Before filling, the well is to be checked for obstructions. Any that would interfere with effective sealing of the well shall be removed.
6. The wells shall be sealed by grouting from the bottom up by using neat cement containing bentonite or aquajel from 2% to 6% by weight or combination thereof, or pure bentonite in any form. This material shall be applied the full depth of the well and shall terminate within three feet (one meter) of the ground surface.
7. The well casing shall be removed at least three feet (one meter) below final grade or existing ground whichever is lower. Any concrete, brickwork, masonry, pipe, or unsuitable material within three feet (one meter) of final grade or existing ground whichever is lower shall be removed and the hole shall be filled to final grade with sand, soil, or earth approved by the Engineer. The fill shall be placed and compacted to the satisfaction of the Engineer.

This work shall be paid for at the contract unit price per each for FILLING EXISTING WELLS which price shall include the materials, labor, equipment, tools, and all incidentals necessary to complete this item.

FURNISHING AND MAINTAINING AUTOMOTIVE VEHICLE

This item shall consist of furnishing, servicing, and maintaining in good repair two (2) unmarked ½ ton quad or extended cab pickup trucks with four-wheel drive as approved by IDOT. These vehicles are for use by IDOT personnel in conformance with Illinois Departmental Order 11-2, Vehicle Operator's Manual concerning the use and operation of vehicles.

The vehicles shall be equipped with air conditioning, power steering and brakes, automatic transmission, strobe light bar, AM/FM radio, cruise control, seat belts, and equipment boxes on the sides and front of the pickup truck bed. The vehicles will be used for the duration of the project. The vehicles shall be late model, low mileage or new and shall have a valid certificate of safety affixed to the windshield if required by the Illinois Vehicle Code.

Additional items associated with the vehicles and/or maintenance of the vehicle such as gas, oil, filters, and lubrication shall be the responsibility of the contractor.

Insurance shall be provided by the contractor meeting the requirements of Article 107.27 of the Standard Specifications for Road and Bridge Construction. IDOT shall be named as an additional insured on the policy. A copy of the required vehicle insurance shall be submitted to IDOT prior to the performance of any work.

If the vehicle is withdrawn from service for more than one working day for mechanical repairs or body damage, the contractor shall provide a substitute vehicle of similar quality.

This work will be paid for at the contract unit price per calendar month or portion thereof for FURNISHING AND MAINTAINING AUTOMOTIVE VEHICLE, per each vehicle.

TRANSVERSE DRAINS, COMPLETE 10/27/11

This work consists of constructing transverse drains at locations shown in the plans or directed by the Engineer. Transverse drains shall be constructed according to the details shown in the plans and applicable portions of Section 601 of the Standard Specifications.

Perforated and non-perforated pipe shall be corrugated polyethylene pipe with a smooth interior meeting the requirements of Article 1040.04. All pipes shall have a 4 inch inside diameter.

Backfill and bedding aggregate shall consist of CA-16 gravel or crushed gravel or FA 4 natural sand. Capping aggregate shall be CA-7 crushed stone. All aggregate shall be reasonably free of objectionable deleterious material. Limestone CA-16 or sand shall not be allowed. Backfill and capping aggregate shall be compacted in separate operations to the satisfaction of the Engineer.

This work shall be paid for at the contract unit price per each for TRANSVERSE DRAINS, COMPLETE.

REVETMENT MAT REMOVAL

This work shall consist of the removal and satisfactory disposal of existing concrete revetment mat in accordance with applicable portions of Section 501 of the Standard Specifications and as directed by the Engineer.

This work shall be paid for at the contract unit price per square yard for REVETMENT MAT REMOVAL.

CONCRETE PAD

Concrete pads shall be constructed for the purpose of protecting existing utility pipeline facilities located within the existing right-of-way limits at the locations shown in the plans or as directed by the Engineer. The concrete pads shall be constructed of Class SI concrete and welded wire fabric detailed as shown in the plan details. The construction may be grade formed should the existing soil conditions provide sufficient lateral support without collapsing. The finished surface shall be thoroughly worked during the operations of placing in such a manner as to provide a steel trowel finish free of honeycomb and with a minimum of water and air pockets.

This work will be paid for at the contract unit price per square yard for CONCRETE PAD which shall include all labor materials and equipment necessary to complete the work as specified.

FIELD TILE

All reported field tiles have been shown on the plans; however, it is anticipated that additional field tile exists within the proposed construction limits.

Exploratory trenching shall be completed at the beginning of construction to locate the majority of all existing field tiles. The Resident Engineer will contact the property owners/tenants to determine locations of where exploratory trenching shall be completed. An estimated quantity of exploratory trenching is included in the plans. This quantity may be increased or decreased, as determined by the Engineer.

When field tiles are located, they shall be handled as detailed in the plans and in accordance with applicable portions of Section 611 of the Standard Specifications, as designated by the Engineer.

Portions of Section 611 of the Standard Specifications shall be revised in accordance with the following:

- Storm Sewer, Protected shall be utilized to replace field tile that is not intercepted by the proposed roadway ditches and runs from right-of-way line to right-of-way line under the proposed roadway. This storm sewer shall be a consistent run of the same material as specified for Storm Sewer, Protected between proposed Field Tile Junction Vaults (pipe risers or concrete manholes) located at the right-of-way lines. The Engineer shall try to combine several existing field tile crossings into one storm sewer run if possible to reduce the number of crossings. This work will be paid for at the contract unit price per foot for STORM SEWER, PROTECTED of the size required.
- Field Tile Junction Vaults shall be constructed as described in Section 602 and detailed in the plans and will be paid for at the contract unit price each for FIELD TILE JUNCTION VAULTS, of the diameter specified by the Engineer.
- Trench backfill will only be paid for backfilling of trenches crossing under the proposed pavement and shoulder and within 2 feet of the proposed edge of stabilized shoulder, and shall be in accordance with applicable portions of Section 208 of the Standard Specifications.
- Backfilling of flexible pipes, as described in the first table of Section 550.03, shall be according to Section 550.07. This cost shall be reflected in the contract unit price per foot of STORM SEWER, PROTECTED or STORM SEWER, SPECIAL of the size specified.
- Storm Sewer, Protected shall continue through the shallow cover areas under ditches and be protected in these areas by a proposed concrete slab as detailed in the plans, which will be paid for at the contract unit price per cubic yard for MISCELLANEOUS CONCRETE, which price additionally includes all reinforcement, excavation, and backfilling required.
- Concrete headwalls, concrete slabs, and paved ditch sections required for this work will be paid for at the contract unit price per cubic yard for MISCELLANEOUS CONCRETE, which price shall include all labor, equipment, and materials involved. Reinforcement, excavation, and backfill will not be paid for separately.
- Storm Sewer (Special) shall be used to replace field tile within right-of-way where it will not cross the roadway. Storm Sewer, Special will also be utilized within the right-of-way to replace and outlet field tile termini into ditches.

If the property owner desires to install a new field tile trunk line outside and parallel to our right-of-way to reduce the number of outlets into our ditches or number of storm sewer runs across State right-of-way, they first must obtain estimates from field tile contractors, and when agreeable to the Engineer, proceed with the relocation on their own and retain full responsibility of the relocation not to exceed the price quoted. The property owner shall be reimbursed for their expenses through the Contractor in accordance with Article 109.05 of the Standard Specifications. No additional compensation will be allowed.

STORM SEWERS PROTECTED, CLASS A, 6" AND 8" 6M15 03/05/12

This work shall be performed according to Section 611 at locations directed by the Engineer. The locations are limited to where the cover thickness is inadequate to accommodate the Class A pipe material described in Article 550.03, and the pipe cannot be tied in with other field tile within a reasonable distance as determined by the Engineer.

Materials:

Plastic pipe meeting water main requirements. Plastic pipe shall be marked with the manufacturer's name (or trademark); ASTM or AWWA specification; Schedule Number, Dimension Ratio (DR) Number or Standard Dimension Ratio (SDR) Number; and Cell Class. The pipe and fittings shall also meet NSF Standard 14, and bear the NSF seal of approval. Fittings shall be compatible with the type of pipe used. The plastic pipe options shall be in accordance with the following:

1. Polyvinyl Chloride (PVC) conforming to ASTM D 1785. Schedule 80 is the minimum required for all pipe sizes, except when the pipe is to be threaded, and then it shall be Schedule 120. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
2. Polyvinyl Chloride (PVC) conforming to ASTM D 2241. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
3. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 441. A minimum of Schedule 80 is required for all pipe sizes. Threaded joints are not allowed. It shall be made from CPVC compound meeting ASTM D 1784, Class 23447.
4. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 442. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from CPVC compound meeting ASTM D 1784, Class 23447.
5. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C900. A minimum of wall thickness of DR 25 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
6. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C905. A minimum of wall thickness of DR 26 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

Joining of plastic pipe shall be by push-on joint, solvent welded joint, heat welded joint, flanged joint, or threaded joint, in accordance with the pipe manufacturer's instructions and industry standards. Special precautions shall be taken to insure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastomeric seals (gaskets) used for push-on joints on plastic pipe shall comply with ASTM F477.

Solvent cement shall be specific for the plastic pipe material and shall comply with ASTM D 2564 (PVC) or ASTM F 493 (CPVC) and be approved by NSF.

Construction Requirements: Construction shall be performed according to Article 611.04 and the detail shown in the plans with the following exceptions:

1. The minimum trench width shall be 30 inches.
2. Bedding and backfill shall be coarse aggregate.
3. Deflection testing is not required.

This work will be measured and paid for according to Article 611.06 and 611.07.

NON-SHRINK GROUT

This work shall consist of filling all holes in existing HMA pavements in adjacent contracts that were previously cored for the purpose of installing permanent traffic control signage. Upon removal of the sign post, all water and loose debris shall be removed and the holes then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

This work shall meet the requirements of Article 407.02 and Section 1018 of the Standard Specifications.

This work shall be paid for at the contract unit price per cubic foot for NON-SHRINK GROUT.

TEMPORARY EROSION CONTROL

This work shall consist of furnishing and erecting temporary erosion control systems, as shown in Standard 280001 of the plans or as directed by the Engineer at locations designated by the Engineer and in accordance with the applicable portions of Section 280 of the Standard Specifications.

The cost of furnishing, installing, and removing temporary ditch checks for erosion control will be paid for at the contract unit price per foot for TEMPORARY DITCH CHECKS, which price shall include any excavation or embedment, staking the bales in place, or any other installation requirements by the Engineer.

The cost of furnishing, installing, and removing stone dumped riprap ditch checks for temporary erosion control will be paid for at the contract unit price per ton for AGGREGATE DITCH CHECKS, which price shall include any excavation required for embedment, furnishing the riprap material to the size specified by the Engineer, placing the riprap to the satisfaction of the Engineer, and removing portions or all of the ditch checks as directed by the Engineer.

The cost of furnishing and removing inlet and pipe protection (temporary ditch checks and aggregate ditch checks) will be paid for at the contract unit price per each for INLET AND PIPE PROTECTION, which price shall include any excavation or embedment, staking the bales in place, or any other installation requirements by the Engineer.

The cost of excavation for the construction of sediment basins will be paid for at the contract unit price per cubic yard for EARTH EXCAVATION FOR EROSION CONTROL, which price shall include removal, hauling and disposal of material to a non-erodible location.

TEMPORARY SEEDING AND MULCH

Two Methods of Temporary Seeding shall be utilized:

TEMPORARY EROSION CONTROL SEEDING shall be used during brief halts due to the earthwork. It will be as detailed in Article 280 at the rate of 50 lbs./Acre.

SEEDING CLASS 7 shall be utilized during winter and prolonged shutdowns according to Section 250 except that seed bed preparation will be required. MULCH METHOD 2 will be required as per Section 251.

This work shall be performed in accordance with Sections 250 and 251 of the Standard Specifications, as shown in the plans, and as follows:

(a) Class 7 Seeding (Temporary Turf Cover Mixture) shall be used as a temporary erosion control method when permanent seeding cannot be accomplished so as to limit the surface area of erodible earth material exposed by clearing, grubbing, excavation, borrow, and embankment operations. The following seed mixture and rates per acre shall be used during the time of year indicated:

Seed Mixture	Spring 3/1 to 7/31 Lb./Acre	Fall 8/1 to 11/15 Lb./Acre	Winter 11/15 to 2/28
Perennial Ryegrass	50	50	Temporary Straw Mulching Only
Spring Oats	64	-	
Winter Wheat	-	64	

(b) Fertilizer and agricultural ground limestone shall be uniformly spread over the designated areas immediately prior to seed bed preparation at the following rates per acre:

- 40 lbs. of Nitrogen Fertilizer Nutrients
- 0 lb. of Phosphorus Fertilizer Nutrients
- 0 lb. of Potassium Fertilizer Nutrients
- 0 tons of Agricultural Ground Limestone

(c) Straw mulch shall be applied to all seeded areas at the rate of 2 tons per acre of Method 2.

The quantities listed in the plans are estimates. The actual quantities required will be as ordered by the Engineer.

MOWING

This work shall consist of mowing all areas of existing turf within 20' of the outside shoulder point and 15' of the median shoulder point along all pavement to a height of not more than 3". The equipment used shall be capable of completely severing all growth at the cutting height and distributing it evenly over the mowed area. The cut material shall not be windrowed or left in a lumpy or bunched condition. Subsequently, mowing may be required, and directed by the Engineer, on certain areas in order to disperse the mowed material. The Contractor will not be required to mow continuously wet ditches and drainage ways, slopes 1:3 (V:H) and greater, or areas which may be designated as not mowable by the Engineer. More than one cycle of mowing may be required during the duration of this contract.

Debris encountered during the mowing operation which hamper the operation or are visible from the roadway shall be removed and disposed of according to Article 250.05. Damage to the right-of-way and turf, such as ruts or wheel tracks more than 2" in depth, shall be repaired to the satisfaction of the Engineer prior to final inspection.

Each mowing cycle will be paid for at the contract unit price per acre for MOWING. Any subsequent mowing required to obtain a height of not more than 3" or to disperse mowed material will be considered as included in the cost of the initial mowing. Removal and disposal of debris and any repairs due to damage of the right-of-way or turf will not be paid for separately but will be considered as included in the cost of the mowing.

SEALING PRECAST PIPE JOINTS

This work applies to precast pipe culverts with a diameter greater than 48 inches. All joints shall be sealed with a combination of mastic joint sealer and non-woven geotechnical fabric according to Article 540.06.

This work will not be paid for separately, but shall be included in the contract unit price per foot for PIPE CULVERTS of the class and type specified.

FIELD CONNECTIONS TO CROSS ROAD DRAINAGE STRUCTURES

Pipe culverts, pipe drains, underdrains, and storm sewers shown on the plans to be connected to cross road drainage structures shall be field connected to the cross road drainage structure in a manner approved by the Engineer.

The cost of this field connection will not be paid for separately, but shall be included in the length of pipe culvert, pipe drain, underdrain, or storm sewer of the type and size shown on the plans and no additional compensation will be allowed.

REMOVE AND REPLACE CONCRETE HEADWALLS FOR PIPE UNDERDRAINS

This work shall consist of the removal and reinstallation of existing concrete headwalls in accordance with applicable portions of Section 501 and Section 601 of the Standard Specifications, as shown in the plans, and as directed by the Engineer.

The existing pipe underdrain connected to the headwall shall remain in place. Any damage to the remaining pipe underdrain shall be repaired or replaced by the Contractor at his/her expense to the approval of the Engineer.

This work shall be paid for at the contract unit price per each for REMOVE AND REPLACE CONCRETE HEADWALLS FOR PIPE UNDERDRAINS.

CLEANING CULVERTS AND RIPRAP BASINS AT COMPLETION

At the end of construction all culverts and riprap basins shall be cleaned from excess debris from erosion and siltation to the satisfaction of the Engineer.

Proper erosion control methods shall be utilized during construction to prevent this occurrence.

This work will not be paid for separately, but shall be included in the contract unit price per cubic yard for EARTH EXCAVATION.

HOT-MIX ASPHALT SURFACE REMOVAL – BUTT JOINT

This work shall be done as shown on the plans and in accordance with Articles 406 and 440 of the Standard Specifications and as follows:

The butt joints to be constructed for the proposed hot-mix asphalt surface course shall not be constructed until all of the hot-mix asphalt binder courses have been completed. After the completion of the binder courses, the Engineer shall determine when the remaining butt joints can be constructed. No butt joints shall be left uncovered without hot-mix asphalt surface over the winter shutdown or other long periods of inactivity.

This work shall be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL – BUTT JOINT.

QC/QA OF CONCRETE MIXTURES APPLICABLE ITEMS 6M9 07/06/12 72961

The Special Provision for Quality Control/Quality Assurance of Concrete Mixtures shall apply to the following:

Pay Item:	Concrete Superstructure
Location:	All
	All locations utilizing self-consolidating concrete for cast-in-place construction.

AGGREGATE SHOULDERS STAGE CONSTRUCTION

This work shall consist of constructing the aggregate shoulders in accordance with Section 481 of the Standard Specifications.

In this project, the sequence of construction requires portions of the project to have lanes open to traffic prior to the final hot-mix asphalt surface course and top lift of hot-mix asphalt shoulders being placed. Before lanes are open to traffic, proposed aggregate shoulders shall be partially complete not allowing a drop off at the edge of the shoulders.

To satisfy this requirement, the contractor will be allowed two options. One is to place the aggregate shoulders in two separate operations (lifts), and the other is to place the aggregate shoulders heavy in one operation (lift) and then later allowing the extra required material to be graded up into place and compacted after the top lift of hot-mix asphalt shoulders is in place.

The cost involved in these extra operations will not be paid for separately, but considered in the contract unit bid price per ton for AGGREGATE SHOULDERS of the type specified. No additional compensation will be allowed.

SOIL MODIFICATION (D6) 082506

This work shall be performed according to Section 302 of the Standard Specifications with the following modifications. The laboratory standard dry density of modified soils may also be determined according to AASHTO T 272. The IBV following curing shall be a minimum of 8.

PAVEMENT STATIONING NUMBERS AND PLACEMENT

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and/or overlay. The numbers shall be approximately 20 mm (3/4 inch) wide, 125 mm (5 inches) high and 15 mm (5/8 inch) deep.

The pavement station numbers shall be installed as specified herein:

Interval – 100 meters (metric stationing) or 250 feet (English stationing)

Bottom of Numbers – 150 mm (6 inches) from the inside edge of the pavement markings and/or resurfacing joint.

Location:

- 2-Lane Pavements – At center line in direction of increasing stations.
- 3 and 5-Lane Pavements – Left edge of center lane in direction of increasing stations.
- Multi-Lane Divided Roadways – Outside edge of pavement in both directions.
- Ramps – Along baseline edge of pavement.

Position – Stations shall be placed so they can be read from the adjacent shoulder.

Format – Metric [English] pavement stations shall use this format (XX+X00 [X0’]) where X represents the pavement station.

This work will not be paid for separately, but will be considered included in the cost of the associated pavement and/or overly pay items.

HOT-MIX ASPHALT PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS-JOBSITE SAMPLING (BMPR)

Effective: April 4, 2008

Revised: April 1, 2012

Description. This special provision describes the procedures used for production, placement and payment for hot-mix asphalt (HMA). This special provision shall apply to all pay items for High ESAL and Low ESAL HMA and SMA mixtures that individually have a minimum quantity of 8000 tons (7260 metric tons) and are placed at a minimum nominal thickness equal to or greater than three times the nominal maximum aggregate size. This special provision shall not apply to shoulders, temporary pavements and patching. This work shall be according to the Standard Specifications except as specified herein.

Delete Articles:	406.06(b), 2 nd paragraph	(Temperature requirements)
	406.06 (e), 3 rd paragraph	(Pavers speed requirements)
	406.07	(Compaction)
	1030.04, last two sentences of first paragraph	(Mix design verification)
	1030.05(a)(4, 5, 7, 8, 9, & 10)	(QC/QA Documents)
	1030.05(d)(2)a.	(Plant Tests)
	1030.05(d)(2)b.	(Dust-to-Asphalt and Moisture Content)
	1030.05(d)(2)d.	(Small Tonnage)
	1030.05(d)(2)f.	(HMA Sampling)
	1030.05(d)(3)	(Required Field Tests)
	1030.05(d)(4)	(Control Limits)
	1030.05(d)(5)	(Control Charts)
	1030.05(d)(6)	(Corrective Action for Required Plant Tests)
	1030.05(d)(7)	(Corrective Action for Field Tests (Density))
	1030.05(e)	(Quality Assurance by the Engineer)
	1030.05(f)	(Acceptance by the Engineer)
	1030.06(a), 3 rd paragraph	(Before start-up...)
	1030.06(a), 7 th paragraph	(After an acceptable...)
	1030.06(a), 8 th paragraph	(If a mixture...)
	1030.06(a), 9 th paragraph	(A nuclear/core...)

Definitions:

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- (c) Percent Within Limits (PWL): The percentage of material within the quality limits for a given quality characteristic.
- (d) Quality Characteristic: The characteristics that are evaluated by the Department for payment using PWL. The quality characteristics for this project are field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined Aggregates Bulk Specific Gravity (G_{sb}) from the mix design
- (e) Quality Level Analysis (QLA): QLA is a statistical procedure for estimating the amount of product within specification limits.
- (f) Sublot: A sublot for field VMA, and voids, will be 1000 tons (910 metric tons), or adjusted to achieve a minimum of 10 tests. If a sublot consists of less than 200 tons (180 metric tons), it shall be combined with the previous sublot.
- (g) Density Testing Interval: The interval for density testing will be 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm). If a density testing interval is less than 200 ft (60 m), it will be combined with the previous test interval.

- (h) Lot: A lot consists of 10 sublots or 30 density intervals. If seven or less sublots or 19 or less density intervals remain at the end of production of a mixture, the test results for these sublots will be combined with the previous lot for evaluation of percent within limits and pay factors. Lots for mixture testing are independent of lots for density testing.
- (i) Density Test: A density test consists of a core taken at a random longitudinal and transverse offset within each density testing interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four including the current day of production. Initial G_{mm} will be based on the average of the first four test results. The random transverse offset excludes the outer 1.0 ft (300 mm) from an unconfined edge. For confined edges, the random transverse offset excludes a distance from the outer edge equal to the lift thickness or a minimum of 4 in. (100 mm).

Pre-production Meeting:

The Engineer will schedule a pre-production meeting a minimum of seven calendar days prior to the start of production. The HMA QC Plan, test frequencies, random test locations, and responsibilities of all parties involved in testing and determining the PWL will be addressed. Personnel attending the meetings will include the following:

- (a) Resident Engineer
- (b) District Mixture Control Representative
- (c) QC Manager
- (d) Contractor Paving Superintendent
- (e) Any consultant involved in any part of the HMA sampling or testing on this project

Quality Control (QC) by the Contractor:

The Contractor's quality control plan shall include the schedule of testing for both quality characteristics and non-quality characteristics required to control the product such as binder content and mixture gradation. The schedule shall include sample location. The minimum test frequency shall not be less than outlined in the Minimum Quality Control Sampling and Testing Requirements table below.

Minimum Quality Control Sampling and Testing Requirements		
Quality Characteristic	Minimum Test Frequency	Sampling Location
Mixture Gradation	1/day	per QC Plan
Binder Content		
G_{mm}		
G_{mb}	per QC plan	per QC Plan
Density		

The Contractor shall submit QC test results to the Engineer within 24 hours of the time of sampling.

Initial Production Testing: The Contractor shall split and test the first two samples with the Department for comparison purposes regardless of whether a test strip is used. The Contractor shall complete all tests and report all results to the Engineer within two working days of sampling. The Engineer will make Department test results of the initial production testing available to the Contractor within two working days from the receipt of the samples. PFP will begin after an acceptable test strip, if one is used.

Quality Assurance (QA) by the Engineer: The Engineer will test each subplot for field VMA, voids, dust/ac ratio and density interval for density to determine payment for each lot. A subplot shall begin once an acceptable test-strip has been completed and the AJMF has been determined. If the test strip is waived, a subplot shall begin with the start of production. All Department testing will be performed in a qualified laboratory by personnel who have successfully completed the Department HMA Level I training.

voids, field VMA, and Dust/AC ratio: The mixture subplot size is 1000 tons (910 metric tons). The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the "PFP and QCP Hot-Mix Asphalt Random Jobsite Sampling" procedure.

Density: The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP and QCP Random Density Procedure". The locations will be identified after final rolling and cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

Test Results: The Department test results for the first subplot, or density testing interval, of every lot will be available to the Contractor within three working days from the time the secured sample from the subplot or density testing interval has been delivered, by the Contractor, to a Department's Testing Facility or a location designated by the Engineer. Test results for the completed lot will be available to the Contractor within 10 working days from the time the last subplot or density testing interval has been delivered to a Department testing facility or a location designated by the Engineer.

The Engineer will maintain a complete record of all Department test results. Copies will be furnished upon request. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

Dispute Resolution: Dispute resolution testing will only be permitted when; 1) the Contractor submits their split sample test results prior to receiving Department split sample test results and 2) the difference between the Contractor and Department split test results exceed the precision limits listed below or are outside acceptable limits. For density disputes, the Contractor shall use the Department's running average for G_{mm} when determining compliance with the Limits of Precision.

Test Parameter	Limits of Precision
Voids	1.0 %
VMA	1.0%
Ratio - Dust / Asphalt Binder	0.2
Core Density	1.0 %

If dispute resolution is necessary, the Contractor shall submit a request in writing within four working days of receipt of the results of the quality index analysis for the lot. The Engineer will document receipt of the request. The Bureau of Materials and Physical Research (BMPR) laboratory will be used for dispute resolution testing.

Density cores for dispute resolution testing shall be taken at the same time as the random density core. The density core for dispute resolution testing shall be taken within 1 ft (300 mm) longitudinally of the random density core and at the same transverse offset.

If three or more consecutive mix sublots are contested, corresponding density results will be recalculated with the new G_{mm} .

All dispute resolution results will replace original quality assurance test results for pay factor recalculation. Test results from the dispute resolution testing will replace voids, VMA and Dust/AC results from the original quality assurance testing. The lot pay factor for the lot under dispute resolution will be recalculated. If the recalculated lot pay factor is less than or equal to the original lot pay factor, laboratory costs listed below will be borne by the Contractor. The effect on the lot pay factor will be determined for each individually disputed sample in the order of increasing subplot/density interval.

Test	Cost
Mix Testing	\$1000.00 / subplot
Core Density	\$300.00 / core

Acceptance by the Engineer and Basis of Payment: The Engineer may cease production if the Contractor is not following the approved QC plan. The Engineer may reject material produced under the following circumstances:

- (a) If PWL for any quality characteristic is below 50 percent for any lot
- (b) If visible pavement distress is present such as, but not limited to, segregation, excessive visible coarse aggregate fracturing in cores or flushing

(c) If any test exceeds the acceptable limits listed below:

Acceptable Limits

Parameter	Acceptable Range
Field VMA	-1.0 – +3.0% ^{1/}
Voids	2.0 – 6.0% ^{2/}
Density: IL-19.0, IL-25.0, IL-9.5, IL-12.5 IL-4.75, SMA	90.0 – 98.0% 92.0 – 98.0%
Dust / AC Ratio	0.4 – 1.6 ^{3/}

- 1/ Based on minimum required VMA from mix design
 2/ The acceptable range for SMA mixtures shall be 2.0% - 5.0%
 3/ Does not apply to SMA

Payment will be based on the calculation of the Composite Pay Factor for each mix according to the “PFP Quality Level Analysis” document. Payment for full depth pavement will be based on the calculation of the Full Depth Pay Factor according to the “PFP Quality Level Analysis” document.

Dust / AC Ratio. In addition to the PWL on VMA, voids, and density, a monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range.

Dust / AC Pay Adjustment Table^{1/}

Range	Deduct / subplot
$0.6 \leq X \leq 1.2$	\$0
$0.5 \leq X < 0.6$ or $1.2 < X \leq 1.4$	\$1000
$0.4 \leq X < 0.5$ or $1.4 < X \leq 1.6$	\$3000
$X < 0.4$ or $X > 1.6$	Shall be removed and replaced

1/ Does not apply to SMA

**HOT-MIX ASPHALT – PAY FOR PERFORMANCE APPLICABLE MIXTURES 6M18
 07/06/12**

The special provision for Hot Mix Asphalt - Pay for Performance Using Percent Within Limits – Jobsite Sampling shall apply to the following:

Mixture/Use:	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4”
Location:	All

HOT MIX ASPHALT – MIXTURE DESIGN REQUIREMENTS (D6) 6M8 07/05/12

The Hamburg Wheel Test criteria and Tensile Strength criteria described in the Special Provision for Hot Mix Asphalt – Mixture Design Verification and Production shall apply to all High ESAL mixtures with an N design level of 70 or higher that are permanently incorporated into the work.

High ESAL mixtures with an N design level of 50 are not required to meet Hamburg Wheel Test criteria.

If a mix fails the Department's Hamburg Wheel verification test, the Contractor shall propose a substantial mixture change in writing to the Engineer for review and approval. Upon approval, the Contractor shall provide the Department four gyratory specimens representing the adjusted mix meeting the preparation requirements of Illinois Modified AASHTO T 324. The Engineer shall witness the production of the specimens. The Department will perform the Hamburg Wheel test and provide results within 10 calendar days of receiving the gyratory specimens.

This work will not be paid for separately, but shall be included in the cost of the various HMA items.

HOT MIX ASPHALT - MIXTURE DESIGN VERIFICATION AND PRODUCTION (BMPR)

Effective: January 1, 2012

Revised: June 1, 2012

Description. This special provision states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and SMA hot mix asphalt (HMA) mixes during mix design verification and production. This special provision also states the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

When the options of Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement are used by the Contractor, the Hamburg Wheel and tensile strength requirements in this special provision will be superseded by the special provisions for Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement as applicable.

In addition to the requirements in the December 1, 2011 HMA Special Provisions for Pay for Performance Using Percent Within Limits, a Hamburg Wheel test and tensile strength test will be conducted during mix design on mixtures used for Pay For Performance projects.

Mix Design Testing. Add the following to Article 1030.04 of the Standard Specifications:

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

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

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 415 kPa (60 psi) 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 1380 kPa (200 psi).”

Production Testing. Add the following to Article 1030.06 of the Standard Specifications:

“(c) Hamburg Wheel Test. A Hamburg Wheel test will be conducted on each High ESAL, IL-4.75, and SMA mix produced that has been verified by the Hamburg Wheel process.

The Contractor shall obtain a sample during the startup for each mix and compact gyratory specimens to the air void percentage as specified in IL-modified AASHTO T-324 to be provided to the Department for testing. The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer.”

System for Hydrated Lime Addition. Revise the last 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).”

Revise 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 drum plant, the lime will be added in such a manner that the lime will not become entrained into the air stream of the dryer and that thorough dry mixing will occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer.”

Basis of Payment. Revise the seventh paragraph of Article 406.14 of the Standard Specifications to read:

“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.”

STATEWIDE PERMIT NO.2

March 1, 2005

MEMORANDUM FOR DISTRIBUTION

SUBJECT: STATEWIDE PERMIT NO. 2 - CONSTRUCTION OF BRIDGE AND CULVERT CROSSINGS OF STREAMS IN RURAL AREAS

Attached for your information is a copy of Illinois Department of Natural Resources, Office of Water Resources Statewide Permit No. 2. Statewide Permit No. 2 authorizes the construction of new and replacement bridge and culvert crossings of streams in rural areas which meet the terms and conditions specified in the Permit. This Permit only approves the hydraulic design of qualifying bridge and culvert crossings; additional approvals may be required from the Illinois Department of Transportation, Division of Highways.

The purpose of Statewide Permit No. 2 is to reduce unnecessary delays in Departmental approval of bridge and culvert crossings which, by their nature, have little likelihood of causing significant flood damage. The Department is not, by issuance of Statewide Permit No. 2, abdicating its regulatory responsibility. If it becomes apparent that the interests of the Department are not being adequately served by the Permit, it will be modified or revoked as required to assure the protection of those interests.

It is still possible to apply for individual permits for bridge and culvert crossings which do not meet the terms and conditions of the Statewide Permit No. 2.

For a bridge or culvert crossing to be permitted by Statewide Permit No. 2, a certification (by an Illinois registered professional engineer) must be made that the crossing has been designed utilizing standard hydrologic and hydraulic engineering methods and that it complies with the terms and conditions of the Permit and applicable rules of the Department. A second certification (by a second Illinois registered professional engineer) that the design of the crossing has been reviewed and found to be in compliance with the terms and conditions of the Permit and applicable rules of the Department must also be made. The purpose of the second certification is to replicate the review process of Department of Natural Resources, Office of Water Resources staff. If certifications are not made, the alternative is to submit an application for normal Departmental review and approval of the hydrologic and hydraulic design of the crossing.

As stated in this Permit, it is not be necessary to submit applications or other information including certifications, to the Office of Water Resources for those bridge and culvert crossings which qualify under the Permit.

For additional information regarding Statewide Permit No. 2 or its applicability, contact either the Downstate Regulatory Programs Section in Springfield (217/782-3863) or the Northeastern Illinois Regulatory Programs Section in Bartlett (847/608-3100 extension 2025).

Attachment

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
OFFICE OF WATER RESOURCES
ONE NATURAL RESOURCES WAY
SPRINGFIELD, ILLINOIS 62702-1271

STATEWIDE PERMIT NO. 2

AUTHORIZING CONSTRUCTION OF BRIDGE AND CULVERT CROSSINGS OF STREAMS
IN RURAL AREAS

Permission is hereby granted for the construction of bridge and culvert crossings which, by being in compliance with the terms and conditions of this Permit, are determined to cause insignificant increase in potential flood damage. Subsequent to the effective date of this Permit, it is not necessary to submit applications to, or obtain individual permits from, the Office of Water Resources for bridge and culvert crossings meeting the specified terms and conditions.

APPLICABILITY

This Permit is applicable to bridge and culvert crossings of streams in rural areas of the state subject to the Department's jurisdiction except: 1) those in Lake, McHenry, Cook, DuPage, Kane and Will Counties for which regulatory floodways have been designated pursuant to 17 Illinois Administrative Code Part 3708; and 2) the public waters of the State (see the Department's Part 3704 "Regulation of Public Waters" rules for a listing of the public waters). Rural areas are areas where residential, commercial, or industrial development does not exist and is not expected to occur within a ten-year period. If there is any question of whether the bridge or culvert structure is within an area classified as rural, the Department shall be consulted to make the final determination.

This permit does **not** apply to the replacement of any bridge or culvert that has been the source of demonstrable flood damage.

SPECIAL CONDITIONS OF THE STATEWIDE PERMIT

1. For a new culvert or bridge crossing:
 - (a) The crossing shall be designed such that it will not result in an increase in water surface profile elevation in excess of 1.0 ft. over the natural condition for any frequency flow up to and including the 100-year frequency flood; and

- (b) The crossing shall be designed such that it will not result in an increase in water surface profile elevation in excess of 0.5 ft. over the natural condition at a point 1,000 ft. upstream of the proposed structure (as determined by the horizontal projection of the maximum created head and the slope of the hydraulic grade line) for any frequency flood up to and including the 100-year frequency flood; and
 - (c) There are no buildings or structures in the area impacted by the increases in water surface profile.
- 2. For a replacement culvert or bridge crossing:
 - (a) The crossing shall be designed so that there will be no increase in backwater over the existing conditions, or
 - (b) The crossing shall be designed so that it complies with the water surface profile increases listed in Special Condition 1; and
 - (c) A registered professional engineer shall determine and document that the existing structure has not been the cause of demonstrable flood damage. Such documentation shall include, at a minimum, confirmation that:
 - 1) No buildings or structures have been impacted by the backwater induced by the existing crossing; and
 - 2) There is no record of complaints of flood damages associated with the existing crossing.
- 3. The proposed bridge or culvert crossing, whether new or replacement, must not involve the straghtening, enlargement or relocation of the existing channel of the river or stream. The excavation of the channel and/or overbank necessary for the effective hydraulic performance of the culvert or bridge or removal of debris from the river or stream is not considered straightening, enlargement or relocation. Any excavation of the overbank incorporated into the design of the bridge or culvert crossing to meet the terms of Special Condition 1 or 2, must include appropriate vertical and horizontal transitions.

Furthermore, the bottom elevation of the overbank excavation must not be below one-half the channel depth of the stream. This depth shall be calculated at an existing cross-section of the stream within the general vicinity of the culvert or bridge which has been unaffected by man-made obstructions.
- 4. The design must be certified by a registered professional engineer in the State of Illinois to have been designed by standard hydrologic and hydraulic engineering methods and to be in compliance with the terms and conditions of this Permit and the applicable rules of the Department; and

5. The design must be certified by a second registered professional engineer in the State of Illinois to have been reviewed and found to be in compliance with the terms and conditions of this Permit.
6. The permittee shall maintain, for each project authorized by this permit, the records necessary to document compliance with the above conditions.

GENERAL CONDITIONS OF THE STATEWIDE PERMIT

1. This permit is granted in accordance with the Rivers, Lakes and Streams Act, 615 ILCS 5 (2002 State Bar Edition).
2. This permit does not convey title to any permittee or recognize title of any 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 project or any part thereof will be located, or otherwise grant to any 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.
3. This permit does not release any permittee from liability for damage to persons or property resulting from any activity covered by this permit and does not authorize any injury to private property or invasion of private rights.
4. This permit does not relieve any permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if any permittee is required by law to obtain approval from any federal or other state agency to do the work, authorization granted by 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, from the floodway in which the work is done. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
6. In issuing this permit, the Department of Natural Resources does not approve the adequacy of the design or structural strength of any structure or improvement authorized by this permit.
7. This Statewide Permit shall remain in effect until such time as it is modified, suspended, or revoked by the Department of Natural Resources.

This Statewide Permit was issued on January 6, 1982 and last modified March 1, 2005.

APPROVED:

Joel Brunsvold, Director
Department of Natural Resources

EXAMINED AND RECOMMENDED:

Paul Mauer, Jr., Acting Manager
Division of Water Resource Management

APPROVAL RECOMMENDED:

Gary R. Clark, Director
Office of Water Resources

MATERIAL TRANSFER DEVICE

Description. This work shall consist of placing the top lift of HMA surface course (2") and the top lift of HMA binder course (2 1/4") along US 51 northbound and southbound lanes according to Section 406 of the Standard Specifications, except that these materials shall be placed using a material transfer device. This work does not apply to the turn lanes and tapers, median crossovers, and side roads.

Materials and Equipment. The material transfer device shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

- (a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. Material Transfer devices having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.
- (b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).
- (c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the hot-mix asphalt (HMA). The longitudinal paddle mixers shall be located in the paver hopper insert.

CONSTRUCTION REQUIREMENTS

General. The material transfer device shall be used for the placement of the top lift of HMA surface course (2") along US 51 northbound lanes, US 51 southbound lanes and Crossover "A" and the top lift of HMA binder course (2 1/4") along US 51 northbound lanes and US 51 southbound lanes. The material transfer device speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

Use of a material transfer device with a roadway contact pressure exceeding 20 psi (138 kPa) will be limited to partially completed segments of full-depth HMA pavement where the thickness of binder in place is 9 in. (230 mm) or greater.

Structures. The material transfer device may be allowed to travel over structures under the following conditions:

- (a) Approval will be given by the Engineer.
- (b) The vehicle shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.
- (c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.

Method of Measurement. This work will be measured for payment in tons for placing the top lift of HMA surface course (2") along US 51 northbound lanes, US 51 southbound lanes and Crossover "A" and the top lift of HMA binder course (2 ¼") along US 51 northbound lanes and US 51 southbound lanes with a material transfer device for each lift.

Basis of Payment. This work will be paid for at the contract unit price per tons for MATERIAL TRANSFER DEVICE for each lift placed.

The various HMA mixtures placed with the material transfer device will be paid for as specified in their respective specifications. The Contractor may choose to use the material transfer device for other applications on this project; however, no additional compensation will be allowed.

TEMPORARY SUPPORT SYSTEM

This work shall consist of furnishing all material, equipment and labor to support the existing concrete deck from the removal line to the existing P.P.C. I-beam on both sides of S.N. 011-0037 as shown on the plans, as herein specified, and as directed by the Engineer.

Construction Requirements: The Contractor shall support the concrete deck from below the structure. The Contractor shall uniformly support the concrete deck for the entire length of the structure.

The Contractor shall submit details of the support system he/she proposes to use for approval of the Engineer and District 6 Bureau of Bridges and Structures prior to ordering of material and implementation. The Contractor shall also submit calculations of the support system and connections, prepared and sealed by an Illinois Licensed Structural Engineer. The support system shall be designed to carry the entire dead load and live loads assuming the existing exterior deck have zero capacity. Such approval shall in no way relieve the Contractor of responsibility for the safety of the structure.

Method of Measurement: The temporary support system will not be measured for payment.

Basis of Payment: The work specified herein, as shown on the plans, as specified herein, and as directed by the Engineer, will be not paid for separately but included in the unit price for the pay item CONCRETE REMOVAL.

BUILDING REMOVAL - CASE IV (NO ASBESTOS) (BDE)

Effective: September 1, 1990
Revised: April 1, 2010

BUILDING REMOVAL: This work shall consist of the removal and disposal of 4 building(s), together with all foundations, retaining walls, and piers, down to a plane 1 ft (300 mm) below the ultimate or existing grade in the area and also all incidental and collateral work necessary to complete the removal of the building(s) in a manner approved by the Engineer. Any holes, such as basements, shall be filled with a suitable granular material. The building(s) are identified as follows:

<u>Bldg. No.</u>	<u>Parcel No.</u>	<u>Location</u>	<u>Description</u>
1	6069121	US 51 476+59 RT	House (Approx 1050 sf)
2	6069125	US 51 531+69 61' RT	Grain bin foundation
3	6069125	US 51 531+74 115' RT	Barn foundation
4	6069125	US 51 532+02 67' RT	Grain bin foundation

Discontinuance of Utilities: The Contractor shall arrange for the discontinuance of all utility services and the removal of the metering devices that serve the building(s) according to the respective requirements and regulations of the City, County, or utility companies involved. The Contractor shall disconnect and seal, in an approved manner, all service outlets that serve any building(s) he/she is to remove.

Signs: Immediately upon execution of the contract and prior to the wrecking of any structures, the Contractor shall be required to paint or stencil, in contrasting colors of an oil base paint, on all four sides of each residence and two opposite sides of other structures, the following sign:

PROPERTY ACQUIRED FOR
HIGHWAY CONSTRUCTION
TO BE DEMOLISHED BY THE

VANDALS WILL BE PROSECUTED

The signs shall be positioned in a prominent location on the structure so that they can be easily seen and read and at a sufficient height to prevent defacing. The Contractor shall not paint signs nor start demolition of any building(s) prior to the time that the State becomes the owner of the respective building(s).

Basis of Payment: This work will be paid for at the contract lump sum unit price for BUILDING REMOVAL, numbers as listed above, which price shall be payment in full for complete removal of the buildings and structures, including any necessary backfilling material as specified herein. The lump sum unit price(s) for this work shall represent the cost of demolition. Any salvage value shall be reflected in the contract unit price for this item.

Notifications: The "Demolition/Renovation Notice" form, which can be obtained from the IEPA office, shall be completed and submitted to the address listed below at least ten days prior to commencement of any demolition activity.

Asbestos Demolition/Renovation Coordinator
Illinois Environmental Protection Agency
Division of Air Pollution Control
P. O. Box 19276
Springfield, Illinois 62794-9276
(217)785-1743

Notices shall be updated if there is a change in the starting date or the amount of asbestos changes by more than 20 percent.

Submittals:

- A. All submittals and notices shall be made to the Engineer except where otherwise specified herein.
- B. Prior to starting work, the Contractor shall submit proof of written notification and compliance with the "Notifications" paragraph

TEMPORARY SHEET PILING

Effective: September 2, 1994

Revised: January 31, 2012

Description. This work shall consist of furnishing, driving, adjusting for stage construction when required and subsequent removal of the sheet piling according to the dimensions and details shown on the plans and according to the applicable portions of Section 512 of the Standard Specifications.

This work shall also include furnishing, installing and subsequent removal of all miscellaneous steel shapes, plates and connecting hardware when required to attach the sheeting to an existing substructure unit and/or to facilitate stage construction.

General. The Contractor may propose other means of supporting the sides of the excavation provided they are done so at no extra cost to the department. If the Contractor elects to vary from the design requirements shown on the plans, the revised design calculations and details shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and/or railroads.

Material. The sheet piling shall be made of steel and may be new or used material, at the option of the Contractor. The sheet piling shall have a minimum section modulus as shown on the plans or in the approved Contractor's alternate design. The sheeting shall have a minimum yield strength of 38.5 ksi (265 MPa) unless otherwise specified. The sheeting, used by the Contractor, shall be identifiable and in good condition free of bends and other structural defects. The Contractor shall furnish a copy of the published sheet pile section properties to the Engineer for verification purposes. The Engineer's approval will be required prior to driving any sheeting. All driven sheeting not approved by the Engineer shall be removed at the Contractor's expense.

Construction. The Contractor shall verify locations of all underground utilities before driving any sheet piling. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The Contractor shall be responsible for determining the appropriate equipment necessary to drive the sheeting to the tip elevation(s) specified on the plans or according to the Contractor's approved design. The sheet piling shall be driven, as a minimum, to the tip elevation(s) specified, prior to commencing any related excavation. If unable to reach the minimum tip elevation, the adequacy of the sheet piling design will require re-evaluation by the Department prior to allowing excavation adjacent to the sheet piling in question. The Contractor shall not excavate below the maximum excavation line shown on the plans without the prior permission of the Engineer. The sheet piling shall remain in place until the Engineer determines it is no longer required.

The sheet piling shall be removed and disposed of by the Contractor when directed by the Engineer. When allowed, the Contractor may elect to cut off a portion of the sheet piling leaving the remainder in place. The remaining sheet piling shall be a minimum of 12 in. (300 mm) below the finished grade or as directed by the Engineer. Removed sheet piling shall become the property of the Contractor.

When an obstruction is encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction. An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where it's presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven through or around with normal driving procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

Method of Measurement. The temporary sheet piling will be measured for payment in place in square feet (square meter). Any temporary sheet piling cut off, left in place, or driven to dimensions other than those shown on the contract plans without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's expense.

If the Contractor is unable to drive the sheeting to the specified tip elevation(s) and can demonstrate that any further effort to drive it would only result in damaging the sheeting, then the Contractor shall be paid based on the plan quantity of temporary sheeting involved. However, no additional payment will be made for any walers, bracing, or other supplement to the temporary sheet piling, which may be required as a result of the re-evaluation in order to insure the original design intent was met. Portions of the temporary sheet piling left in place for reuse in later stages of construction shall only be measured for payment once.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY SHEET PILING.

Payment for any excavation performed in conjunction with this work will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

CONCRETE WEARING SURFACE

Effective: June 23, 1994

Revised: January 31, 2012

Description.

This work consists of placing a concrete wearing surface, to the specified thickness, on precast concrete deck beams. Included in this work is cleaning and preparing the concrete deck beam surface prior to placement of the concrete wearing surface. This work shall be according to the applicable articles of Section 503 and the following.

Materials.

The concrete wearing surface shall be class BS concrete, except as follows, when Steel Bridge Rail is used in conjunction with concrete wearing surface, the 14 day mix design shall be replaced by a 28 day mix design with a compressive strength of 5000 psi (34,500 kPa) and a design flexural strength of 800 psi (5,500 kPa).

Surface Preparation.

Prior to placement of the concrete wearing surface, the top surface of the bridge deck beams shall be clean and free of all foreign material.

Blast cleaning may be performed by either wet sandblasting, high pressure waterblasting, steel shot blasting, shrouded dry sandblasting, dry sandblasting with dust collectors, or other methods approved by the Engineer. Oil traps on blast equipment will be required.

The method used shall be performed so as to conform with air and water pollution regulations of Illinois and also to conform to applicable safety and health regulations. Any method which does not consistently produce satisfactory work and does not conform to the above requirements shall be discontinued and replaced by an acceptable method.

All debris of every type, including dirty water, resulting from the cleaning operation shall be reasonably confined during the performance of the cleaning work and shall be immediately and thoroughly removed from the cleaned surfaces and all other areas where debris may have accumulated.

Prior to placement of the concrete wearing surface, the Engineer will inspect the cleaned surface, all areas still contaminated shall be cleaned again at the Contractor's expense.

Wearing Surface Placement.

The concrete wearing surface placement shall be according to Article 503.16 of the Standard Specifications. Dry sandblast cleaned areas to receive the overlay shall be either thoroughly or continuously wetted with water at least one hour before placement of the concrete wearing surface is started. When the surface is pre-wetted any accumulations of water shall be dispersed or removed prior to placement of the concrete wearing surface.

Plans for anchoring support rails and the mixture-placing procedure shall be submitted to the Engineer for approval.

Curing and Protection.

The concrete shall be continuously wet cured for at least 14 days according to Article 1020.13(a)(5). However, if the minimum specified compressive strength or flexural strength is obtained prior to 14 days, the cure time may be reduced, but at no time shall the wet cure be less than 7 days. The concrete shall be protected from low air temperatures according to Article 1020.13(d)(1)(2), except the protection method shall remain in place for the entire curing period.

Opening to Traffic.

The concrete wearing surface without Steel Bridge Rail attached may be opened to traffic when test specimens have obtained a minimum compressive strength of 4000 psi (27,500 kPa) or a minimum flexural strength of 675 psi (4650 kPa), but not prior to the completion of the wet cure. When Steel Bridge Rail is utilized, the concrete wearing surface may be opened when test specimens have obtained a minimum compressive strength of 5000 psi (34,500 kPa) or a minimum flexural strength of 800 psi (5500 kPa), but not prior to the completion of the wet cure.

Method of Measurement.

Concrete wearing surface will be measured for payment in place and the area computed in square yards (square meters).

Basis of Payment.

This work including cleaning and surface preparation will be paid for at the contract unit price per square yard (square meter) for CONCRETE WEARING SURFACE, of the thickness specified.

TEMPORARY SOIL RETENTION SYSTEM

Effective: December 30, 2002

Revised : May 11, 2009

Description. This work shall consist of designing, furnishing, installing, adjusting for stage construction when required and subsequent removal of the temporary soil retention system according to the dimensions and details shown on the plans and in the approved design submittal.

General. The temporary soil retention system shall be designed by the Contractor as a minimum, to retain the exposed surface area specified in the plans or as directed by the Engineer.

The design calculations and details for the temporary soil retention system proposed by the Contractor shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and/or railroads.

Construction. The Contractor shall verify locations of all underground utilities before installing any of the soil retention system components or commencing any excavation. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The soil retention system shall be installed according to the Contractor's approved design, or as directed by the Engineer, prior to commencing any related excavation. If unable to install the temporary soil retention system as specified in the approved design, the Contractor shall have the adequacy of the design re-evaluated. Any reevaluation shall be submitted to the Engineer for approval prior to commencing the excavation adjacent to the area in question. The Contractor shall not excavate below the maximum excavation line shown in the approved design without the prior permission of the Engineer. The temporary soil retention system shall remain in place until the Engineer determines it is no longer required.

The temporary soil retention system shall be removed and disposed of by the Contractor when directed by the Engineer. When allowed, the Contractor may elect to cut off a portion of the temporary soil retention system leaving the remainder in place. The remaining temporary soil retention system shall be removed to a depth which will not interfere with the new construction, and as a minimum, to a depth of 12 in. (300 mm) below the finished grade, or as directed by the Engineer. Removed system components shall become the property of the Contractor.

When an obstruction is encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction. An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where its presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven or installed through or around, with normal driving or installation procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

Method of Measurement. The temporary soil retention system furnished and installed according to the Contractor's approved design or as directed by the Engineer will be measured for payment in place, in square feet (square meters). The area measured shall be the vertical exposed surface area envelope of the excavation supported by temporary soil retention system. Portions of the temporary soil retention system left in place for reuse in later stages of construction shall only be measured for payment once.

Any temporary soil retention system installed beyond those dimensions shown on the contract plans or the approved contractor's design without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's own expense.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY SOIL RETENTION SYSTEM.

Payment for any excavation, related solely to the installation and removal of the temporary soil retention system and/or its components, shall not be paid for separately but shall be included in the unit bid price for TEMPORARY SOIL RETENTION SYSTEM. Other excavation, performed in conjunction with this work, will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000

Revised: January 22, 2010

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

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

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

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

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

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

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

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

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

POROUS GRANULAR EMBANKMENT, SPECIAL

Effective: September 28, 2005

Revised: November 14, 2008

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

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

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

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

DIAMOND GRINDING AND SURFACE TESTING BRIDGE SECTIONS

Effective: December 6, 2004

Revised: July 9, 2008

Description. This work shall consist of diamond grinding and surface testing bridge sections.

A bridge section shall consist of the bridge deck plus the bridge approach pavement and connector pavement on each side of the bridge.

Equipment. Equipment shall be according to the following.

- (a) Diamond Grinder. The diamond grinder shall be a self-propelled planing machine specifically designed for diamond saw grinding. It shall be capable of accurately and automatically establishing the profile grade and shall have a positive means for controlling cross slope. It shall also have an effective means for removing excess material and slurry from the surface and for preventing dust from escaping into the air. The diamond grinder shall not cause strain or damage to the surface.

The grinding head shall be a minimum of 4 ft. (1.2 m) wide and the diamond saw blades shall be gang mounted on the grinding head at a rate of 50 blades / ft. (164 blades/m).

- (b) Surface Testing Equipment. Required surface testing and analysis equipment and their jobsite transportation shall be provided by the Contractor.

(1) Profile Testing Device. The Profile Testing Device shall have a decal displayed to indicate it has been tested through the PEV Program administered by the Department.

- a. California Profilograph. The California Profilograph shall be either computerized or manual and have a frame 25 ft (8 m) in length supported upon multiple wheels at either end. The profile shall be recorded from the vertical movement of a wheel attached to the frame at mid point.

The California Profilograph shall be calibrated according to the manufacturer's recommendations and California Test 526. All calibration traces and calculations shall be submitted to the Engineer for the project file.

- b. Inertial Profiler. The inertial profiler shall be either an independent device or a system that can be attached to another vehicle using one or two non-contact sensors to measure the pavement profile. The inertial profiler shall be capable of performing a simulation of the California Profilograph to provide results in the Profile Index format.

The inertial profiler shall be calibrated according to the manufacturer's recommendations. All calibration traces and calculations shall be submitted to the Engineer for the project file.

- (3) Trace Analysis. The Contractor shall reduce/evaluate these traces using a 0.00 in. (0.0 mm) blanking band and determine a Profile Index in in./mile (mm/km) for each bridge section. Traces produced using a computerized profile testing device will be evaluated without further reduction. When using a manual profile testing device, the Contractor shall provide an electronic scanner, a computer, and software to reduce the trace. All analysis equipment (electronic scanner, computerized recorder, etc.) shall be able to accept 0.00 in. (0.0 mm) for the blanking band.

All traces from bridge sections tested with the profile testing device shall be recorded on paper with scales of 300:1 longitudinally and 1:1 vertically. Equipment and software settings of the profile testing device and analysis equipment shall be set to those values approved through the PEV Program."

CONSTRUCTION REQUIREMENTS

General. After all components have been properly cured, the bridge section shall be ground over its entire length and over a width that extends to within 2 ft. (600 mm) of the curbs or parapets. The maximum thickness removed shall be 1/4 in. (6 mm); however, when the bridge deck thickness noted on the plans can be maintained, as a minimum, additional removal thickness may be permitted.

The vertical difference between longitudinal passes shall be 1/8 in. (3 mm) maximum. The grinding at the ends of the bridge section shall be diminished uniformly at a rate of 1:240 over the connector pavements.

Grinding shall be continuous through all joints. When sealed joints are specified, grinding shall be completed prior to final installation of the joints seals. During grinding, joint openings shall be temporarily filled with material approved by the Engineer.

Surface Testing. The diamond ground bridge section shall be surface tested in the presence of the Engineer prior to opening to traffic. All objects and debris shall be removed from the surface prior to testing. During surface testing, joint openings may be temporarily filled with material approved by the Engineer.

Profiles shall be taken in the wheel paths of each lane, 3 ft. (1 m) from and parallel to the planned lane lines. A guide shall be used to maintain the required distance.

The profile trace shall be printed on continuous paper with scales of 300:1 horizontally and 1:1 vertically and shall have stationing indicated every 500 ft. (150 m) at a minimum. Both ends of the profile trace shall be labeled with the following information: contract number, beginning and ending stationing, which direction is up on the trace, which direction the profilograph was pushed, and profilograph operator name(s). The top portion of the Profilograph Report of Bridge Smoothness (Attachment 1) shall be completed and the form secured around the trace roll.

Trace Reduction and Bump Locating Procedure. All traces shall be reduced. Traces produced by a mechanical recorder shall be reduced using an electronic scanner and computer software. This software shall calculate the profile index and indicate any bumps in excess of 0.30 in. (8 mm) with a line intersecting the profile on the printout. Computerized recorders shall provide the same information.

The average profile index and locations with deviations exceeding the 0.30 in. (8 mm) limit shall be recorded on the Profilograph Report of Bridge Smoothness as shown in Attachment 1.

All traces and completed reports shall be provided within two working days of completing the testing to the Engineer for the project file. Traces from either a computerized profile testing device or analysis software used with a manual profile testing device shall display the settings used for the data reduction. The Engineer will compare these settings with the approved settings from the PEV Program. If the settings do not match, the results will be rejected and the section shall be retested/reanalyzed with the appropriate settings.

Corrective Actions. Within the bridge section, all deviations in excess of 0.30 in. (8 mm) in a length of 25 ft. (8 m) or less shall be corrected regardless of the profile index value. Correction of deviations shall not result in the deck thickness being less than the minimum.

Any bridge section having an average profile index greater than 35.0 in./mile (555 mm), including bumps, shall be corrected to reduce the profile index to 35.0 in./mile (555 mm/km) or less on each trace.

Where corrective work is performed, the bridge section shall be retested to verify that corrections have produced a profile index of 35.0 in./mile (555 mm/km) or less for each trace.

Corrective actions shall be performed at no additional cost to the department. The Contractor shall furnish the surface profilograph tracing and the completed form to the Engineer within two working days after any corrections are made.

The Engineer may perform profilograph testing on the surface at any time for monitoring and comparison purposes.

Smoothness Assessments. Smoothness assessments will be based on the final average profile index determined for the bridge section after performing any corrective work. Additional payments/deductions will be as indicated in the Smoothness Assessment Schedule.

The Smoothness Assessment Work Sheet (Attachment 2) will be completed by the Engineer for payment.

SMOOTHNESS ASSESSMENT SCHEDULE

Profile Index in./mile (mm/km) per Bridge Section	Smoothness Assessment per Bridge Section
15.0 (240) or less	+\$7,500.00
>15.0 (240) to 18.0 (285)	+\$5,000.00
>18.0 (285) to 20.0 (315)	+\$2,500.00
>20.0 (315) to 35.0 (555)	+\$0.00
>35.0 (555) to 45.0 (710)	+\$0.00
>45.0 (710)	-\$5,000.00

Method of Measurement. This work will be measured for payment in place and the area computed in square yards (square meters) of diamond grinding performed.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for DIAMOND GRINDING (BRIDGE SECTION).

**INSTRUCTIONS FOR COMPLETING
PROFILOGRAPH REPORT OF BRIDGE SMOOTHNESS**

This form shall be prepared and submitted, along with the profile trace, to the Engineer.

The Type of Report is one of the following:

Information – Test conducted for informational purposes only.

Initial – Testing of bridge section prior to any corrective action.

Intermediate – After some corrective action has been completed.

Final – After all corrective action has been completed.

Other Information:

Structure Number – Numerical identification of the bridge.

Traffic Direction – NB, SB, EB, or WB depending on the design traffic flow of the numbered route.

Lane Designation – DL (Driving Lane), CL (Center Lane), or PL (Passing Lane).

Operator – Printed name of Contractor personnel operating profilograph.

Engineer – Printed name of Department representative witnessing data collection.

Bump locations are listed by station for each track (wheel path).

EXAMPLE

PROFILOGRAPH REPORT FOR BRIDGE SMOOTHNESS

Type of Report:

Information Initial Intermediate Final

Contract No. 96739

Route IL 255

Contractor John Doe Construction Co.

Section No. _____

Station 1795+06.0

County Madison

No. of Lanes 2

Structure Number 060-1234

Operator Joe Smith

Traffic Direction EB

Engineer Mike Jones

Date Tested 09/02/99

Section No.	Length mile (km)	Track 1 Measured Roughness in. (mm)	Track 1 Profile Index in./mile (mm/km)	Track 2 Measured Roughness in. (mm)	Track 2 Profile Index in./mile (mm/km)	Average Profile Index in./mile (mm/km)
1	0.100	2.16	21.6	1.30	13.0	17.3
2	0.100	2.18	21.8	2.26	22.6	22.2

Bump Locations: Track 1: 1893+53.5

Certified by: _____

Title: Chief Profilograph Pusher

Organization: John Doe Construction Co.

ATTACHMENT 1

PROFILOGRAPH REPORT FOR BRIDGE SMOOTHNESS

Type of Report:

___ Information ___ Initial ___ Intermediate ___ Final

Contract No. _____

Route _____

Contractor _____

Section No. _____

Station _____

County _____

No. of Lanes _____

Structure Number _____

Operator _____

Traffic Direction _____

Engineer _____

Date Tested _____

Section No.	Length mile (km)	Track 1 Measured Roughness in. (mm)	Track 1 Profile Index in./mile (mm/km)	Track 2 Measured Roughness in. (mm)	Track 2 Profile Index in./mile (mm/km)	Average Profile Index in./mile (mm/km)

Bump Locations: _____

Certified by: _____

Title: _____

Organization: _____

ATTACHMENT 2

SMOOTHNESS ASSESSMENT WORK SHEET

Contract No. _____ Section _____
 Route _____ County _____

Section Number	Structure Number	Final Profile Index	Smoothness Assessment (+ or -)	Accumulated Assessment (+ or -)	Remarks/Final Profile
Final Assessment					

Computed by: _____ Checked by: _____

Approved by: _____

CONCRETE DECK BEAMS

Effective: June 13, 2008

Revised: October 9, 2009

Add the following equipment to Article 504.03.

(c) Mechanical Mixer (Note 1) 1101.19

Note 1: A drill with paddle may be used for mixing small quantities of nonshrink grout. Hand mixing will not be allowed.

Replace the second sentence of the fifth paragraph of Article 504.06(d) with the following.

Dowels at the fixed ends of the deck beams shall be installed, nonshrink grout placed and cured for a minimum of 24 hours. If the bearing area is specified to be grouted it shall be done at the time of dowel placement.

Replace the fourth paragraph of Article 504.06(e) with the following.

A mechanical mixer shall be used to mix the nonshrink grout and the type of mixer and mixing procedures shall be per the manufacturer's recommendations. During placement, the grout shall be worked into the area with a pencil vibrator. The surface shall be troweled to a smooth finish. The nonshrink grout shall be immediately cured with cotton mats according to Article 1020.13 for a minimum of seven days, and field testing will not be required. However, the cure time may be reduced provided the Contractor molds specimens, covers them, and performs cube tests according to ASTM C 1107. The tests shall verify the 6000 psi grout strength has been obtained, but in no case shall the cure time be less than three days.

For Contractor cube tests, each sample shall consist of three test specimens and a minimum of two samples will be required for each day of grouting. Additional samples may be requested by the Engineer. Specimens shall be cured underneath the cotton mats with the beams for a minimum of 48 hours before transport to the laboratory for testing. The laboratory shall be inspected for Hydraulic Cement – Physical Tests by the Cement and Concrete Reference Laboratory (CCRL).

Add the following paragraph to the end of Article 504.06

(f) Construction Inserts. All inserts, including those necessary for the fabrication and construction of the structure or portions thereof shall be cast into the member according to Article 3.5.2 of the Manual for Fabrication of Precast Prestressed Concrete Products.

Replace 1006.06(a) and (b) with the following.

- (a) Transverse Tie Rod Assemblies. Steel for transverse tie rod assemblies (i.e. rods, nuts, washers and coupling nuts) shall be according to ASTM F 1554 Grade 55 (Grade 380). After fabrication, the transverse tie assemblies shall be hot-dipped galvanized according to AASHTO M 232. The small articles may be zinc-coated by the mechanically deposited process according to AASHTO M 298, Class 50. The thickness of the mechanical galvanizing shall not exceed 6 mils (150 μ m).
- (b) Dowel Rods. Steel for dowel rods shall be according to ASTM F 1554 Grade 55 (Grade 380) or A706 Grade 60. Dowel rods shall be either epoxy coated according to AASHTO M 284 or galvanized according to AASHTO M 111.

Add the following Article to Section 1101.

1101.19 Mechanical Mixer. The mechanical mixer shall have paddles or blades that are suitable for uniformly mixing the material, and shall have sufficient capacity to allow for a continuous work operation.

STRUCTURAL ASSESSMENT REPORTS FOR CONTRACTOR'S MEANS AND METHODS

Effective: March 6, 2009

DESCRIPTION

This item shall consist of preparing and submitting, to the Engineer for approval, Structural Assessment Reports (SARs) for proposed work on structure(s) or portions thereof. Unless noted otherwise, a SAR shall be required when the Contractor's means and methods apply loads to the structure or change its structural behavior. A SAR shall be submitted and approved prior to beginning the work covered by that SAR. Separate portions of the work may be covered by separate SARs which may be submitted at different times or as dictated by the Contractor's schedule.

Existing Conditions. An Existing Structure Information Package (ESIP) will be provided by the Department to the Contractor upon request. This package will typically include existing or "As-Built" plans, and the latest National Bridge Inspection Standards (NBIS) inspection report. The availability of structural information from the Department is solely for the convenience and information of the Contractor and shall not relieve the Contractor of the duty to make, and the risk of making, examinations and investigations as required to assess conditions affecting the work. Any data furnished in the ESIP is for information only and does not constitute a part of the Contract. The Department makes no representation or warranty, express or implied, as to the information conveyed or as to any interpretations made from the data.

Removal SARs. A SAR for removal of existing structures, or portions thereof, shall demonstrate that the Contractor's proposed means and methods to accomplish the work do not compromise the structural adequacy of the bridge, or portions thereof that are to remain in service, at any time during the work activities being performed. Each phase of the operation shall be accounted for, as well as the existing condition of the structure.

Construction SARs. A SAR for new construction or for construction utilizing existing components shall demonstrate that the Contractor's proposed means and methods to accomplish the work do not compromise the structural adequacy of the bridge or portions thereof at any time during the work activities being performed. For construction activities applying less than 10 tons (9 metric tons) of total combined weight of equipment and stockpiled materials on the structure at any one time, a SAR submittal shall not be required provided the Contractor submits written verification to the Engineer stating the applied loads do not exceed this threshold. The verification shall be submitted prior to the start of the activity. This SAR exemption shall not relieve the Contractor from responsibility for the structure. A SAR shall be submitted in all cases where the existing structure is posted for less than legal loads or the Contract plans indicate a live load restriction is in place.

REQUIREMENTS

a) General. All work specified shall be performed according to the Contract plans, Special Provisions and/or Standard Specifications governing that work.

Submittals for falsework and forming for concrete construction shall be according to Articles 503.05 and 503.06 and does not require a SAR. Moving construction equipment across a structure, or portions thereof, open to traffic shall be addressed according to Article 107.16 and does not require a SAR. Operating equipment on an in-service structure and/or using a portion of an in-service structure as a work platform shall require a SAR and Article 107.16 shall not apply.

The Contractor may move vehicles across the existing bridge without a SAR after closure and prior to removal of any portion of the structure provided:

- The vehicles satisfy the requirements of Section 15-111 of the Illinois Vehicle Code (described in the IDOT document "Understanding the Illinois Size & Weight Laws") or of the Federal Highway Administration document "Bridge Formula Weights" (available at: http://ops.fhwa.dot.gov/freight/publications/brdg_frm_wgths/bridge_formula_all.pdf)
- The Contractor submits written verification to the Engineer stating the vehicles meet these requirements. The verification shall be submitted prior to allowing the vehicles on the structure.

This SAR exemption shall not relieve the Contractor from responsibility for the structure. This SAR exemption shall not be allowed where the existing structure is posted for less than legal loads or the Contract plans indicate a live load restriction is in place. No stockpiling of material is allowed under this exemption.

All SARs shall detail the procedures and sequencing necessary to complete the work in a safe and controlled manner. When appropriate, supporting design calculations shall be provided verifying the following:

- The effects of the applied loads do not exceed the capacity at Operating level for any portions of the structure being utilized in the demolition of the structure provided those portions are not to be reused.
- The effects of the applied loads do not exceed the capacity at Inventory level for new construction or for portions of the existing structure that are to be reused.
- The condition of the structure and/or members has been considered.

See AASHTO Manual for Bridge Evaluation for further information on determining the available capacities at the Operating and Inventory levels.

b) Confidential Documents. Due to the sensitivity of the inspection reports and bridge condition reports to bridge security, the following confidentiality statement applies to these reports:

“Reports used by the Contractor and the contents thereof are the property of the Department, and are subject to the control of the Department in accordance with State and Federal law. The distribution, dissemination, disclosure, duplication or release of these reports or the content thereof in any manner, form or format without the express permission of the keeper of this record is prohibited. The owner is the official keeper of these records, except for state owned bridges, where the official keeper of these records is the Regional Engineer.”

c) Submittals. The Contractor shall be pre-approved to prepare SAR(s) or shall retain the services of a pre-qualified engineering firm to provide these services. Pre-approval of the Contractor will be determined by the Illinois Department of Transportation and will allow SAR(s) preparation by the Contractor unless otherwise noted on the plans. For engineering firms, pre-qualification shall be according to the Department in the category of “Highway Bridges-Typical” unless otherwise noted on the plans. Firms involved in any part of the project (plan development or project management) will not be eligible to provide these services. Evidence of pre-approval/pre-qualification shall be submitted with all SAR(s). The SAR(s) shall be prepared and sealed by an Illinois Licensed Structural Engineer. The Contractor shall submit SAR(s), complete with working drawings and supporting design calculations, to the Engineer for approval, at least 30 calendar days prior to start of that portion of the work.

At a minimum a Structural Assessment Report shall include the following:

1. A plan outlining the procedures and sequence for the work, including staging when applicable.
2. A demolition plan (when removal is included as an item of work in the contract) including details of the proposed methods of removal.
3. A beam erection plan (when beam erection is included as an item of work in the contract) including details of the proposed methods of erection.
4. Pertinent specifications for equipment used during the work activity.
5. The allowable positions for that equipment during the work activity.
6. The allowable positions and magnitudes of stockpiled materials and/or spoils, if planned to be located on the structure.
7. Design and details for temporary shoring and/or bracing, if required by the Contractor's means and methods.

Approval or acceptance of a Structural Assessment Report shall not relieve the Contractor of any responsibility for the successful completion of the work.

Revisions to the Contractor's means and methods resulting in no increased load effects to the structure, as determined by the Contractor's Structural Engineer, shall not require a SAR resubmittal. However, the Contractor's Structural Engineer shall submit to the Engineer written verification that there is no increased load effect. The written verification shall specify the revisions and shall be submitted prior to the start of the revised activities.

The Contractor shall be responsible for following the approved SAR related to the work involved.

METHOD OF MEASUREMENT

Structural Assessment Reports will not be measured for payment.

BASIS OF PAYMENT

Structural Assessment Reports will not be paid for separately but shall be considered as included in the contract unit price(s) for the work item(s) specified.

COFFERDAMS

Effective: October 15, 2011

Replace Article 502.06 with the following.

502.06 Cofferdams. A Cofferdam shall be defined as a temporary structure, consisting of engineered components, designed to isolate the work area from water to enable construction under dry conditions based on either the Estimated Water Surface Elevation (EWSE) or Cofferdam Design Water Elevation (CDWE) shown on the contract plans as specified below. When cofferdams are not specified in the contract documents and conditions are encountered where the excavation for the structure cannot be kept free of water for prosecuting the work by pumping and/or diverting water, the Contractor, with the written permission of the Engineer, will be permitted to construct a cofferdam.

The Contractor shall submit a cofferdam plan for each cofferdam to the Engineer for approval prior to the start of construction. Cofferdams shall not be installed or removed without the Engineer's approval. Work shall not be performed in flowing water except for the installation and removal of the cofferdam. The cofferdam plan shall address the following:

- (a) Cofferdam (Type 1). The Contractor shall submit a cofferdam plan which addresses the proposed methods of construction and removal; the construction sequence including staging; dewatering methods; erosion and sediment control measures; disposal of excavated material; effluent water control measures; backfilling; and the best management practices to prevent reintroduction of excavated material into the aquatic environment. The design and method of construction shall provide, within the measurement limits specified in Article 502.12, necessary clearance for forms, inspection of exterior of the forms, pumping, and protection of fresh concrete from water. For Type 1 cofferdams, it is anticipated the design will be based on the EWSE shown on the contract plans. The Contractor shall assume all liability, financial or otherwise for a Type 1 cofferdam designed for an elevation lower than the EWSE.

- (b) Cofferdam (Type 2). In addition to the requirements of Article 502.06(a), the Contractor's submittal shall include detailed drawings and design calculations, prepared and sealed by an Illinois Licensed Structural Engineer. For Type 2 cofferdams it is anticipated the design will be based on the CDWE shown on the contract plans. The Contractor shall assume all liability, financial or otherwise for a Type 2 cofferdam designed for an elevation lower than the CDWE.
- (c) Seal Coat. The seal coat concrete, when shown on the plans, is based on design assumptions in order to establish an estimated quantity. When seal coat is indeed utilized, it shall be considered an integral part of the overall cofferdam system and, therefore, its design shall be included in the overall cofferdam design submittal. If a seal coat was not specified but determined to be necessary, it shall be added to the contract by written permission of the Engineer. The seal coat concrete shall be constructed according to Article 503.14. After the excavation within the cofferdam has been completed and the piles have been driven (if applicable), and prior to placing the seal coat, the elevation of the bottom of the proposed seal coat shall be verified by soundings. The equipment and methods used to conduct the soundings shall meet the approval of the Engineer. Any material within the cofferdam above the approved bottom of the seal coat elevation shall be removed.

No component of the cofferdam shall extend into the substructure concrete or remain in place without written permission of the Engineer. Removal shall be according to the previously approved procedure. Unless otherwise approved in writing by the Engineer, all components of the cofferdam shall be removed.

Revise the first paragraph of 502.12(b) to read as follows.

- (b) Measured Quantities. Structure excavation, when specified, will be measured for payment in its original position and the volume computed in cubic yards (cubic meters). Horizontal dimensions will not extend beyond vertical planes 2 ft (600 mm) outside of the edges of footings of bridges, walls, and corrugated steel plate arches. The vertical dimension for structure excavation will be the average depth from the surface of the material to be excavated to the bottom of the footing as shown on the plans or ordered in writing by the Engineer. The volume of any unstable and/or unsuitable material removed within the structure excavation will be measured for payment in cubic yards (cubic meters).

Revise the last paragraph of 502.12(b) to read as follows.

Cofferdam excavation will be measured for payment in cubic yards (cubic meters) in its original position within the cofferdam. Unless otherwise shown on the plans, the horizontal dimensions used in computing the volume will not extend beyond vertical planes 2 ft (600 mm) outside of the edges of the substructure footings or 4 ft (1.2 m) outside of the faces of the substructure stem wall, whichever is greater. The vertical dimensions will be the average depth from the surface of the material to be excavated to the elevation shown on the plans for bottom of the footing, stem wall, or seal coat, or as otherwise determined by the Engineer as the bottom of the excavation.

Revise the first sentence of the sixth paragraph of 502.13 to read as follows.

Cofferdams, when specified, will be paid for at the contract unit price per each for COFFERDAM (TYPE 1) or COFFERDAM (TYPE 2), at the locations specified.

WEEP HOLE DRAINS FOR ABUTMENTS, WINGWALLS, RETAINING WALLS AND CULVERTS

Effective: April 19, 2012

Delete the last paragraphs of 205.05 and 502.10 and replace with the following.

If a geocomposite wall drain according to Section 591 is not specified, a prefabricated geocomposite strip drain according to Section 1040.07 shall be placed at the back of each drain hole. The strip drain shall be 24 inches (600 mm) wide and 48 inches (1.220 m) tall. The strip drain shall be centered over the drain hole with the bottom located 12 inches (300 mm) below the bottom of the drain hole. All form boards or other obstructions shall be removed from the drain holes before placing any geocomposite strip drain.

Revise the title of 1040.07 to Geocomposite Wall Drains and Strip Drains.

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012

Revised: January 1, 2013

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

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

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.06
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01, CS 02, and RR 01 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01, CS 02, or RR 01 are used in lower lifts.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

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

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CA 02, CA 06, or CA 10 shall be 12 in. (300 mm). The maximum nominal lift thickness of aggregate gradations CS 01, CS 02, and RR 01 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When the contract specifies that a granular subbase is to be placed on the aggregate subgrade improvement, the 3 in. (75 mm) of capping aggregate shall be the same gradation and may be placed with the underlying aggregate subgrade improvement material.

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

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

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

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

Add the following to Section 1004 of the Standard Specifications:

"1004.06 Coarse Aggregate for Aggregate Subgrade Improvement. The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

- (1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01, CS 02 or RR 01(see Article 1005.01(c)).

COARSE AGGREGATE SUBGRADE GRADATIONS					
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)					
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

- (2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE)

Effective: April 1, 2012

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

"Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (superstructure products only) 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."

Revise the first sentence of the first paragraph of Article 1004.02(f) of the Standard Specifications to read:

- "(f) Freeze-Thaw Rating. When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on subgrade such as bridge approach slabs, concrete structures on subgrade such as bridge approach footings, or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test (Illinois Modified AASHTO T 161)."

CONCRETE BOX CULVERTS WITH SKEWS \leq 30 DEGREES REGARDLESS OF DESIGN FILL AND SKEWS $>$ 30 DEGREES WITH DESIGN FILLS $>$ 5 FEET (BDE)

Effective: April 1, 2012

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.”

Revise the fourth paragraph of Article 540.06 of the Standard Specifications to read:

“The excavation and backfilling for precast concrete box culverts shall be according to the requirements of Section 502, except where the design fill is less than or equal to 8 ft (2.4 m), or the design fill is less than the clear span of the box. In these cases ASTM C 1577 requires a select granular backfill (porous granular material) over the box. If a porous granular backfill is required but is not detailed on the plans for the culvert(s), the Contractor shall have the option of either furnishing porous granular backfill where required to satisfy ASTM C 1577, or submitting an alternate design, sealed by an Illinois licensed Structural Engineer, which precludes the use of a porous granular backfill. In addition for all precast boxes a layer of porous granular material, at least 6 in. (150 mm) in thickness, shall be placed below the elevation of the bottom of the box. The porous granular material shall extend at least 2 ft (600 mm) beyond each side of the box. The precast concrete box culvert shall be laid according to the applicable requirements of Article 542.04(d). After installation, the interior and exterior joint gap between precast concrete box culvert sections shall be a maximum of 1 1/2 in. (38 mm).”

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: August 2, 2011

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

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

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

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE 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 **5.00%** 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.

DBE LOCATOR REFERENCES. 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 www.dot.il.gov.

BIDDING PROCEDURES. 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.

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.
- (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 delivered. A request may provide additional written documentation and/or argument 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. The 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.

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

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE 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) NO AMENDMENT. 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) TERMINATION OR REPLACEMENT. 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 the Special Provision.
- (c) CHANGES TO WORK. 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, then 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.
- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated 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 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.

- (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 BDE 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) ENFORCEMENT. 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) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

FABRIC BEARING PADS (BDE)

Effective: January 1, 2013

Revise the second sentence of the fifth paragraph of Article 1082.01 of the Standard Specifications to read:

“The thickness of the fabric bearing pads shall be as shown on the plans within a tolerance of $\pm 10\%$.”

FRICITION AGGREGATE (BDE)

Effective: January 1, 2011

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	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA All Other	Stabilized Subbase Shoulders or	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-25.0, IL-19.0, or IL-19.0L SMA Binder	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/}
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-12.5, IL-9.5, or IL-9.5L SMA Ndesign Surface 50	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}

Use	Mixture	Aggregates Allowed	
HMA High ESAL	D Surface and Leveling Binder IL-12.5 or IL-9.5 SMA Ndesign 50 Surface	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{4/ 5/} Crushed Concrete ^{3/}	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		25% Limestone	Dolomite
		50% Limestone	Any Mixture D aggregate other than Dolomite
75% Limestone	Crushed Slag (ACBF) ^{5/} or Crushed Sandstone		
HMA High ESAL	E Surface IL-12.5 or IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination:</u> Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{5/} Crushed Concrete ^{3/} No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Dolomite ^{2/}	Any Mixture E aggregate
		75% Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed Stone

Use	Mixture	Aggregates Allowed	
		75% Crushed Gravel or Concrete ^{3/}	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF) ^{5/} , or Crushed Steel Slag ^{5/}
HMA High ESAL	F Surface IL-12.5 or IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination:</u> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{5/} No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Crushed Gravel, Crushed Concrete ^{3/} , or Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed Stone

- 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 either slag is used, the blend percentages listed shall be by volume.”

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

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 µm) 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, Bedding, and Trench Backfill for Pipe Culverts and Storm Sewers	CA 6, CA 9, CA 10, CA 12, CA17, CA18, and CA 19
Porous Granular Embankment, Porous Granular Backfill, and French Drains	CA 7, CA 8, CA 11, CA 15, CA 16 and CA 18”

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

Effective: January 1, 2010

Revised: April 1, 2012

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

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

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

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

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

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

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

MODIFIED URETHANE PAVEMENT MARKING (BDE)

Effective: April 1, 2012

Add the following to Article 780.02 of the Standard Specifications:

“(h) Modified Urethane Pavement Marking 1095.09”

Add the following to Article 780.03 of the Standard Specifications:

“(e) Modified Urethane 1105.04”

Revise Article 780.11 of the Standard Specifications to read:

“780.11 Modified Urethane. The pavement shall be cleaned of all dirt, grease, glaze, or any other material that would reduce the adhesion of the markings with minimum or no damage to the pavement. New PCC pavements shall be blast-cleaned to remove all curing compounds. New asphalt and seal coated shall be in place a minimum of two weeks prior to marking applications.

Markings shall be applied on the same calendar day that the pavement surface is cleaned. If this cannot be accomplished, the surface shall be re-cleaned prior to applying the markings. Existing pavement markings shall be at least 90 percent removed. No markings shall be applied until the Engineer approves the cleaning.

Widths, lengths, and shapes of the cleaned surface shall be prepared wider than the modified urethane pavement marking material to be applied, such that a prepared area is on all sides of the urethane pavement marking material after application.

The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order than an inspector can be present during the operation. At the time of this notification, the Contractor shall indicate the manufacturer and lot numbers of urethane and reflective media that will be used. The Engineer will ensure that the approved lot numbers appear on the material package.

The pavement markings shall be applied during conditions of dry weather and subsequently dry pavement surfaces at a minimum uniform wet thickness of 25 mils (0.64 mm) according to the manufacturer's installation instructions. The application and combination of reflective media (glass beads and/or reflective elements) shall be applied at a rate specified by the manufacturer. At the time of installation the pavement surface temperature shall be 40 °F (5 °C) and rising and the ambient temperature shall be 35 °F (2 °C) and rising. The pavement surface temperature and the ambient temperatures shall be determined and documented before the start of each of marking operation. The pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that moisture, such as rain showers, may occur during the installation and curing periods.”

Revise Article 780.12 of the Standard Specifications to read:

“780.12 Inspection. The epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B or C, polyurea, and modified urethane 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, polyurea, and modified urethane markings. In addition, they will be inspected following a winter performance period that extends 180 days from November 1.

Within 15 calendar days after the end of the winter performance period, a final performance inspection will be made. Final acceptance requirements are as follows.

- (a) Lane lines: 90 percent intact by area of each individual dashed line segment.
- (b) Crosswalks, stop lines, arrows, and words: 90 percent intact by area of each individual line, symbol, or letter.
- (c) Center lines, edge lines, gore markings, and channelizing lines: 90 percent intact by area measured over any 10 ft (3 m) length of any individual line regardless of width.
- (d) Entire project: measured in its entirety according to (a), (b), and (c) above, the entire project shall be 95 percent intact.

Upon completion of the final performance inspection, or after satisfactory completion of any necessary correction, the Engineer will notify the Contractor, in writing, of the date of such final performance inspection and release him/her from further performance responsibility.

If this inspection discloses any work, in whole or in part, which does not meet the inspection requirements, the Contractor shall, within 30 calendar days, completely repair or replace such work to the satisfaction of the Engineer.

This performance inspection and performance acceptance of the epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B and C pavement, polyurea, and modified urethane 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, polyurea, and modified urethane pavement markings. Execution of the third party bond shall be the option of the Contractor."

Revise Article 780.13 of the Standard Specifications to read:

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

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Lines will be measured for payment in place in feet (meters). Double yellow lines will be measured as two separate lines.

Words and symbols shall conform to the sizes and dimensions specified in the Illinois Manual on Uniform Traffic Control Devices and Standard 780001 and will be measured based on the total areas indicated in Table 1 or as specified in the plans.

Removal of existing pavement markings will be measured for payment according to Article 783.05."

Add the following to Section 780 of the Standard Specifications:

"780.14 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, or B - INLAID; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LINE; POLYUREA PAVEMENT MARKING TYPE I - LINE; POLYUREA PAVEMENT MARKING TYPE II - LINE; MODIFIED URETHANE PAVEMENT MARKING - LINE; and/or per square foot (square meter) for THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS; PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS; EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS; PREFORMED PLASTIC PAVEMENT MARKING - TYPE B, C, or B - INLAID - LETTERS AND SYMBOLS; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS; MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS.

When the Contractor has the option of applying Permanent Pavement Marking it shall be Thermoplastic, Preformed Plastic (Type B, C, or B - Inlaid), Epoxy, Preformed Thermoplastic, Polyurea, or Modified Urethane Pavement Markings. It will be paid for at the contract unit price per foot (meter) of applied line for PERMANENT PAVEMENT MARKING - LINE 4 (100), 5 (125), 6 (150), 8 (200), 12 (300), 16 (400), or 24 in. (600 mm) and per square foot (square meter) for PERMANENT PAVEMENT MARKING - LETTERS AND SYMBOLS.

Temporary pavement markings placed in lieu of permanent will be paid for according to Article 703.07.

Removal of existing pavement markings will be paid for according to Article 783.06.

*TABLE 1

LETTERS
 sq ft (sq m)

Size	A	B	C	D	E	F	G	H	I
6 ft (1.8 m)	3.1 (0.28)	4.0 (0.37)	2.7 (0.25)	3.4 (0.31)	3.3 (0.31)	2.6 (0.24)	3.3 (0.31)	3.4 (0.31)	1.5 (0.14)
8 ft (2.4 m)	5.5 (0.51)	7.1 (0.66)	4.8 (0.45)	6.1 (0.57)	5.9 (0.55)	4.7 (0.44)	5.8 (0.54)	6.0 (0.56)	2.6 (0.24)

Size	J	K	L	M	N	O	P	Q	R
6 ft (1.8 m)	2.1 (0.2)	3.1 (0.28)	2.2 (0.20)	4.2 (0.39)	4.0 (0.37)	3.4 (0.31)	3.0 (0.28)	3.6 (0.33)	3.6 (0.33)
8 ft (2.4 m)	3.7 (0.34)	5.7 (0.53)	3.8 (0.45)	7.4 (0.69)	7.1 (0.65)	6.0 (0.56)	5.3 (0.49)	6.3 (0.59)	6.3 (0.59)

Size	S	T	U	V	W	X	Y	Z
6 ft (1.8 m)	3.2 (0.30)	2.2 (0.20)	3.2 (0.30)	2.7 (0.25)	4.2 (0.39)	2.7 (0.25)	2.2 (0.20)	2.9 (0.26)
8 ft (2.4 m)	5.7 (0.53)	3.8 (0.35)	5.6 (0.52)	4.8 (0.45)	7.3 (0.68)	4.8 (0.45)	3.9 (0.36)	5.1 (0.47)

NUMBERS
 sq ft (sq m)

Size	1	2	3	4	5
6 ft (1.8 m)	1.5 (0.14)	3.3 (0.31)	3.3 (0.31)	2.9 (0.26)	3.5 (0.33)
8 ft (2.4 m)	2.6 (0.24)	5.8 (0.54)	5.8 (0.54)	5.1 (0.47)	6.1 (0.57)

Size	6	7	8	9	0
6 ft (1.8 m)	3.5 (0.33)	2.2 (0.20)	3.8 (0.35)	3.5 (0.33)	3.4 (0.31)
8 ft (2.4 m)	6.2 (0.58)	3.8 (0.35)	6.7 (0.62)	6.2 (0.58)	6.0 (0.56)

SYMBOLS

Symbol	Large Size sq ft (sq m)	Small Size 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)	--
Handicapped Symbol	4.6 (0.43)	--

*Table applies to all types of pavement marking materials.”

Add the following Section to Section 1095 of the Standard Specifications:

“1095.09 Modified Urethane Pavement Marking. The modified urethane pavement marking material shall consist of a homogenous blend of modified urethane resins and pigments designed to provide a simple volumetric mixing ratio of two components (must be two volumes of Part A to one volume of Part B). No volatile solvent or fillers will be allowed.

- (a) Pigmentation. The pigment content by weight (mass) of Part A shall be determined by low temperature ashing according to ASTM D 3723. The pigment content shall not vary more than \pm two percent from the pigment content of the original qualified paint.

White pigment shall be Titanium Dioxide meeting ASTM D 476 Type II, Rutile.

Yellow pigment shall be Organic Yellow containing no heavy metals.

- (b) Environmental. Upon heating to application temperature, the material shall not exude fumes which are toxic or injurious persons or property when handled according to manufacturer specifications. The modified urethane pavement marking material compositions shall not contain free isocyanate functionality.

- (c) Daylight Reflectance. The daylight directional reflectance of the cured modified urethane material (without reflective media) shall be a minimum of 80 percent (white) and 50 percent (yellow) relative to magnesium oxide when tested using a color spectrophotometer with a 45 degree circumferential / zero degrees geometry, illuminant C, and two degrees 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. In addition, the color of the yellow modified urethane shall visually match Color Number 33538 of Federal Standard 595a with chromaticity limits as follows:

x	0.490	0.475	0.485	0.539
y	0.470	0.438	0.425	0.456

- (d) Weathering Resistance. The modified urethane, when mixed in the proper ratio and applied at 14 to 16 mils (0.35 to 0.41 mm) wet film thickness to an aluminum alloy panel (Federal Test Std. No. 141, Method 2013) and allowed to cure for 72 hours at room temperature, shall be subjected to accelerated weathering for 75 hours. The accelerated weathering shall be completed by using the light and water exposure apparatus (fluorescent UV – condensation type) and tested according to ASTM G 53.

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) and four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the material shall show no substantial change in color or gloss.

- (e) Drying Time. The modified urethane material, when mixed in the proper ratio and applied at 14 to 16 mils (0.35 to 0.41 mm) wet film thickness and with the proper saturation of glass beads, shall exhibit a no-tracking time of four minutes or less when tested according to ASTM D 711.

- (f) Adhesion. The catalyzed modified urethane pavement marking materials when applied to a 4 x 4 x 2 in. (100 x 100 x 50 mm) concrete block shall have a degree of adhesion which results in a 100 percent concrete failure in the performance of this test.

The concrete block shall be brushed on one side and have a minimum strength of 3,500 psi (24,100 kPa). A 2 in. (50 mm) square film of the mixed modified urethane shall be applied to the brushed surface and allowed to cure for 72 hours at room temperature. A 2 in. (50 mm) cube shall be affixed to the surface of the modified urethane by means of an epoxy glue. After the glue has cured for 24 hours, the modified urethane specimen shall be placed on a dynamic testing machine in such a fashion so that the specimen block is in a fixed position and the 2 in. (50 mm) cube (glued to the modified urethane surface) is attached to the dynamometer head. Direct upward pressure shall be slowly applied until the modified urethane system fails. The location of the break and the amount of concrete failure shall be recorded.

- (g) Hardness. The modified urethane marking materials, when tested according to ASTM D 2240, shall have a Shore D Hardness greater than 75. Films shall be cast on a rigid substrate at 14 to 16 mils (0.35 to 0.41 mm) in thickness and allowed to cure at room temperature for 72 hours before testing.

- (h) Abrasion. The abrasion resistance shall be evaluated according to ASTM D 4060 using a Taber Abrader with a 1,000 gram load and CS 17 wheels. The duration of test shall be 1,000 cycles. The loss shall be calculated by difference and be less than 80. The tests shall be run on cured samples of modified urethane material which have been applied at a film thickness of 14 to 16 mils (0.35 to 0.41) to code S-16 stainless steel plates. The films shall be allowed to cure at room temperature for at least 72 hours and not more than 96 hours before testing.

- (i) Tensile. When tested according to ASTM D 638, the modified urethane pavement marking materials shall have an average tensile strength of not less than 6000 psi (41,300 kPa). The Type IV specimens shall be pulled at a rate of 1/4 in. (6.3 mm) per minute by a suitable dynamic testing machine. The samples shall be allowed to cure at 75 °F ± 2 °F (24 °C ± 1 °C) for a minimum of 24 hours and a maximum of 72 hours prior to performing the indicated tests.
- (j) Compressive Strength. When tested according to ASTM D 695, the catalyzed modified urethane pavement marking materials shall have a compressive strength of not less than 12,000 psi (83,000 kPa). The cast sample shall be conditioned at 75 °F ± 2 °F (24 °C ± 1 °C) for a minimum of 72 hours before performing the indicated tests. The rate of compression of these samples shall be no more than 1/4 in. (6.3 mm) per minute.
- (k) Glass Beads. The glass beads shall meet the requirements of Article 1095.04(m) and Article 1095.07 for first drop and second drop glass beads.
- (l) Packaging. The material shall be shipped to the jobsite in substantial containers and shall be plainly marked with the manufacturer's name and address, the name and color of the material, date of manufacture and batch number.
- (m) Verification. Prior to approval and use of the modified urethane pavement marking materials, the manufacturer shall submit a notarized certification of an independent laboratory, together with the results of all tests, stating these materials meet the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, brand name of modified urethane and date of manufacture. The certification shall be accompanied by 1 pt (1/2 L) samples each of Part A and Part B. Samples shall be sent in the appropriate volumes for complete mixing of Part A and Part B.

After approval by the Department, certification by the modified urethane manufacturer shall be submitted for each batch used. New independent laboratory certified test results and samples for testing by the Department shall be submitted any time the manufacturing process or paint formulation is changed.
- (n) Acceptance samples. Acceptance samples shall consist of 1 pt (1/2 L) samples of Part A and Part B, of each lot of paint. Samples shall be sent in the appropriate volumes for complete mixing of Part A and Part B. The samples shall be submitted to the Department for testing, together with a manufacturer's certification. The certification shall state the formulation for the lot represented is essentially identical to that used for qualification testing. All, acceptance samples will be taken by a representative of the Illinois Department of Transportation. The modified urethane pavement marking materials shall not be used until tests are completed and they have met the requirements as set forth herein.
- (o) Material Retainage. The manufacturer shall retain the test sample for a minimum of 18 months."

Add the following to Section 1105 of the Standard Specifications:

“1105.04 Modified Urethane. The modified urethane pavement marking compounds shall be applied through equipment specifically designed to precisely meter the two components in the ratio of 2:1 and approved by the manufacturer of the material. The equipment shall produce the required amount of heat at the mixing head and gun tip and maintain those temperatures within the tolerances specified. The equipment shall also have as an integral part of the gun carriage, a high pressure air spray capable of cleaning the pavement immediately prior to the marking application.

The equipment shall be capable of spraying both yellow and white modified urethane, according to the manufacturer’s recommended proportions and be mounted on a truck of sufficient size and stability with an adequate power source to produce lines of uniform dimensions and prevent application failure. The truck shall have at least two urethane tanks each of 110 gal (415 L) minimum capacity and shall be equipped with hydraulic systems. It shall be capable of placing stripes on the left and right sides and placing two lines on a three-line system simultaneously with either line in a solid or intermittent pattern, in yellow or white, and applying glass beads by the double drop pressurized bead system. The system shall apply both the first drop glass beads and the second drop glass beads at a rate of 1.2 kg/L (10 lb/gal). The equipment shall be equipped with pressure gauges for each proportioning pump. All guns shall be in full view of operators at all times. The equipment shall have a metering device to register the accumulated installed quantities for each gun, each day. Each vehicle shall include at least one operator who shall be a technical expert in equipment operations and urethane application techniques. Certification of equipment shall be provided at the preconstruction conference.”

PAVEMENT MARKING REMOVAL (BDE)

Effective: April 1, 2009

Add the following to the end of the first paragraph of Article 783.03(a) of the Standard Specifications:

“The use of grinders will not be allowed on new surface courses.”

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.”

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: January 1, 2006

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

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

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

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

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section 7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

PLACING AND CONSOLIDATING CONCRETE (BDE)

Effective: January 1, 2013

Revise the first paragraph of Article 503.06 of the Standard Specifications to read:

“503.06 Forms. Forms shall be set and maintained to the lines and grades shown on the plans, and shall be tight to prevent concrete leakage.”

Revise Article 503.07 of the Standard Specifications to read:

“503.07 Placing and Consolidating. No concrete shall be placed on ice, snow, or frozen foundation material.

The method and manner of placing concrete shall be such as to avoid segregation or separation of the aggregates or the displacement of the reinforcement. The external surface of all concrete shall be thoroughly worked during the operations of placing in such a manner as to work the mortar against the forms to produce a smooth finish free of honeycomb and with a minimum of water and air pockets.

Open troughs and chutes shall extend as nearly as practicable to the point of deposit. Dropping the concrete a distance of more than 5 ft (1.5 m) or depositing a large quantity at any point and running or working it along the forms will not be permitted. The concrete for walls with an average thickness of 12 in. (300 mm) or less shall be placed with tubes so that the drop is not greater than 5 ft (1.5 m).

For self-consolidating concrete, the maximum distance of horizontal flow from the point of deposit shall be 15 ft (4.6 m). The distance may be increased if the dynamic segregation index (DSI) at the maximum flow distance is 10.0 percent or less according to Illinois Test Procedure SCC-8 (Option C). The maximum distance using the DSI shall be 25 ft (7.6 m). In addition, this specified horizontal flow distance shall apply to precast products. In the case of precast prestressed concrete products, refer to the Department's "Manual of Fabrication for Precast Prestressed Concrete Products" for the specified horizontal flow distance requirements.

When the form height for placing the self-consolidating concrete is greater than 10 ft (3.0 m), direct monitoring of form pressure shall be performed by the Contractor according to Illinois Test Procedure SCC-10. The monitoring requirement is a minimum, and the Contractor shall remain responsible for adequate design of the falsework and forms. The Contractor shall record the formwork pressure during concrete placement. This information shall be used by the Contractor to prevent the placement rate from exceeding the maximum formwork pressure allowed, to monitor the thixotropic change in the concrete during the pour, and to make appropriate adjustments to the mix design. This information shall be provided to the Engineer during the pour.

When concrete is pumped, the equipment shall be suitable in kind and adequate in capacity for the work and arranged so that vibrations will not damage freshly placed concrete. Aluminum pipe or conduit will not be permitted in pumping or placing concrete. Mixed concrete shall be supplied to maintain continuous operation of the pumping equipment.

When air entrained concrete is pumped, an accessory or accessories shall be incorporated in the discharge components to minimize air loss. The maximum allowable air loss caused by the pumping operation shall be 3.0 percent with the minimum air content at the point of discharge meeting the requirements of Article 1020.04.

Placing of concrete shall be regulated so that the pressures caused by the wet concrete will not exceed those used in the design of the forms. Special care shall be taken to fill each part of the forms by depositing the concrete as near its final position as possible, to work the coarser aggregates back from the face, and to force the concrete under and around the reinforcement bars without displacing them. Leakage through forms onto beams or girders shall not be allowed to harden and shall be removed while in a plastic state.

The concrete shall be consolidated by internal vibration unless self-consolidating concrete is used. Self-consolidating concrete may be used for inaccessible locations where consolidation by internal vibration is not practicable. The self consolidating concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator may only be permitted if it can be used in a manner that does not cause segregation as determined by the Engineer. Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

The Contractor shall provide and use a sufficient number of vibrators to ensure that consolidation can be started immediately after the concrete has been deposited in the forms.

The vibrators shall be inserted into the concrete immediately after it is deposited and shall be moved throughout the mass so as to thoroughly work the concrete around the reinforcement, embedded fixtures, and into the corners and angles of the forms. Vibrators shall not be attached to the forms, reinforcement bars, or the surface of the concrete.

Application of vibrators shall be at points uniformly spaced and not farther apart than twice the radius over which the vibration is visibly effective. The duration of the vibration at the points of insertion shall be sufficient to thoroughly consolidate the concrete into place but shall not be continued so as to cause segregation. When consolidating concrete in bridge decks, the vibrator shall be vertically inserted into the concrete for 3 - 5 seconds or for a period of time determined by the Engineer. Vibration shall be supplemented by spading when required by the Engineer. In addition to the internal vibration required herein, formed surfaces which will be exposed to view after completion of the work shall be spaded with a spading tool approved by the Engineer.

Concrete shall be placed in continuous horizontal layers. When it is necessary by reason of an emergency to place less than a complete horizontal layer in one operation, such layer shall terminate in a vertical bulkhead. Separate batches shall follow each other closely and in no case shall the interval of time between the placing of successive batches be greater than 20 minutes.

If mix foaming or detrimental material is observed during placement or at the completion of a pour, the material shall be removed while the concrete is still plastic

After the concrete has taken its initial set, care shall be exercised to avoid jarring the forms or placing any strain on the ends of projecting reinforcement.”

Revise Article 516.12(a) of the Standard Specifications to read:

“(a) Free Fall Placement. The free fall placement shall only be permitted in shafts that can be dewatered to ensure less than 3 in. (75 mm) of standing water exist at the time of placement without causing side wall instability. The height of free fall placement shall be a maximum of 60 ft (18.3 m) as measured from the discharge end, but it shall be reduced to a maximum of 30 ft (9.1 m) when self-consolidating concrete is used. The Contractor shall obtain approval from the Engineer to place self-consolidating concrete by free fall.

Concrete placed by free fall shall fall directly to the base without contacting either the rebar cage or shaft sidewall. Drop chutes may be used to direct concrete to the base during free fall placement.

Drop chutes used to direct placement of free fall concrete shall consist of a smooth tube of either one continuous section or multiple pieces that can be added and removed. Concrete may be placed through either a hopper at the top of the tube or side openings as the drop chute is retrieved during concrete placement. The drop chute shall be supported so that free fall does not exceed the specified maximum 60 ft (18.3 m) or 30 ft (9.1 m) at all times from the discharge end, and to ensure the concrete does not strike the rebar cage. If placement cannot be satisfactorily accomplished by free fall in the opinion of the Engineer, either a tremie or pump shall be used to accomplish the pour.”

PORTLAND CEMENT CONCRETE (BDE)

Effective: January 1, 2012

Revised: January 1, 2013

Revise Notes 1 and 2 of Article 312.24 of the Standard Specifications to read:

“Note 1. Coarse aggregate shall be gradation CA 6, CA 7, CA 9, CA 10, or CA 11, Class D quality or better. Article 1020.05(d) shall apply.

Note 2. Fine aggregate shall be FA 1 or FA 2. Article 1020.05(d) shall apply.”

Revise the first paragraph of Article 312.26 of the Standard Specifications to read:

“312.26 Proportioning and Mix Design. At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials for proportioning and testing. The mixture shall contain a minimum of 200 lb (90 kg) of cement per cubic yard (cubic meter). Portland cement may be replaced with fly ash according to Article 1020.05(c)(1), however the minimum portland cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply and a Level III PCC Technician shall develop the mix design.”

Revise the second paragraph of Article 503.22 of the Standard Specifications to read:

Other cast-in-place concrete for structures will be paid for at the contract unit price per cubic yard (cubic meter) for CONCRETE HANDRAIL, CONCRETE ENCASUREMENT, and SEAL COAT CONCRETE.”

Add the following to Article 1003.02 of the Standard Specifications:

(e) Alkali Reaction.

- (1) ASTM C 1260. Each fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.03 percent will be assigned to limestone or dolomite fine aggregates (manufactured stone sand). However, the Department reserves the right to perform the ASTM C 1260 test.
- (2) ASTM C 1293 by Department. In some instances, such as chert natural sand or other fine aggregates, testing according to ASTM C 1260 may not provide accurate test results. In this case, the Department may only test according to ASTM C 1293.

- (3) ASTM C 1293 by Contractor. If an individual aggregate has an ASTM C 1260 expansion value that is unacceptable to the Contractor, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The laboratory performing the ASTM C 1293 test shall be approved by the Department according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Laboratory Requirements for Alkali-Silica Reactivity (ASR) Testing".

The ASTM C 1293 test shall be performed with Type I or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container, wick of absorbent material, or amount of coverage inside the container with blotting paper, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly. If the aggregate is manufactured into multiple gradation numbers, and the other gradation numbers have the same or lower ASTM C 1260 value, the ASTM C 1293 test result may apply to multiple gradation numbers.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 test result. When the Contractor performs the test, a split sample shall be provided to the Engineer. The Engineer may also independently obtain a sample at any time. The aggregate will be considered reactive if the Contractor or Engineer obtains an expansion value of 0.040 percent or greater.

Revise the first paragraph of Article 1004.01(e)(5) of the Standard Specifications to read:

"Crushed concrete, crushed slag, or lightweight aggregate for portland cement concrete shall be stockpiled in a moist condition (saturated surface dry or greater) and the moisture content shall be maintained uniformly throughout the stockpile by periodic sprinkling."

Revise Article 1004.02(d) of the Standard Specifications to read:

"(d)Combining Sizes. Each size shall be stored separately and care shall be taken to prevent them from being mixed until they are ready to be proportioned. Separate compartments shall be provided to proportion each size.

(1) When Class BS concrete is to be pumped, the coarse aggregate gradation shall have a minimum of 45 percent passing the 1/2 in. (12.5 mm) sieve. The Contractor may combine two or more coarse aggregate sizes, consisting of CA 7, CA 11, CA 13, CA 14, and CA 16, provided a CA 7 or CA 11 is included in the blend.

(2) If the coarse aggregate is furnished in separate sizes, they shall be combined in proportions to provide a uniformly graded coarse aggregate grading within the following limits.

Class of Concrete ^{1/}	Combined Sizes	Sieve Size and Percent Passing						
		2 1/2 in.	2 in.	1 3/4 in.	1 1/2 in.	1 in.	1/2 in.	No. 4
PV ^{2/}	CA 5 & CA 7	---	---	100	98±2	72±22	22±12	3±3
	CA 5 & CA 11	---	---	100	98±2	72±22	22±12	3±3
SI and SC ^{2/}	CA 3 & CA 7	100	95±5	---	---	55±25	20±10	3±3
	CA 3 & CA 11	100	95±5	---	---	55±25	20±10	3±3
	CA 5 & CA 7	---	---	100	98±2	72±22	22±12	3±3
	CA 5 & CA 11	---	---	100	98±2	72±22	22±12	3±3

Class of Concrete ^{1/}	Combined Sizes	Sieve Size (metric) and Percent Passing						
		63 mm	50 mm	45 mm	37.5 mm	25 mm	12.5 mm	4.75 mm
PV ^{2/}	CA 5 & CA 7	---	---	100	98±2	72±22	22±12	3±3
	CA 5 & CA 11	---	---	100	98±2	72±22	22±12	3±3
SI and SC ^{2/}	CA 3 & CA 7	100	95±5	---	---	55±25	20±10	3±3
	CA 3 & CA 11	100	95±5	---	---	55±25	20±10	3±3
	CA 5 & CA 7	---	---	100	98±2	72±22	22±12	3±3
	CA 5 & CA 11	---	---	100	98±2	72±22	22±12	3±3

1/ See Table 1 of Article 1020.04.

2/ Any of the listed combination of sizes may be used."

Add the following to Article 1004.02 of the Standard Specifications:

(g) Alkali Reaction.

- (1) ASTM C 1260. Each coarse aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II portland cement having a total equivalent alkali content (Na₂O + 0.658K₂O) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates. However, the Department reserves the right to perform the ASTM C 1260 test.
- (2) ASTM C 1293 by Department. In some instances testing a coarse aggregate according to ASTM C 1260 may not provide accurate test results. In this case, the Department may only test according to ASTM C 1293.
- (3) ASTM C 1293 by Contractor. If an individual aggregate has an ASTM C 1260 expansion value that is unacceptable to the Contractor, an ASTM C 1293 test may be performed by the Contractor according to Article 1003.02(e)(3).

Revise the first paragraph of Article 1019.06 of the Standard Specifications to read:

“1019.06 Contractor Mix Design. A Contractor may submit their own mix design and may propose alternate fine aggregate materials, fine aggregate gradations, or material proportions. Article 1020.05(a) shall apply and a Level III PCC Technician shall develop the mix design.”

Revise Section 1020 of the Standard Specifications to read:

“SECTION 1020. PORTLAND CEMENT CONCRETE

1020.01 Description. This item shall consist of the materials, mix design, production, testing, curing, low air temperature protection, and temperature control of concrete.

1020.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003
(d) Coarse Aggregate	1004
(e) Concrete Admixtures	1021
(f) Finely Divided Minerals	1010
(g) Concrete Curing Materials	1022
(h) Straw	1081.06(a)(1)
(i) Calcium Chloride	1013.01

1020.03 Equipment. Equipment shall be according to the following.

Item	Article/Section
(a) Concrete Mixers and Trucks	1103.01
(b) Batching and Weighing Equipment	1103.02
(c) Automatic and Semi-Automatic Batching Equipment	1103.03
(d) Water Supply Equipment	1103.11
(e) Membrane Curing Equipment	1101.09
(f) Mobile Portland Cement Concrete Plants	1103.04

1020.04 Concrete Classes and General Mix Design Criteria. The classes of concrete shown in Table 1 identify the various mixtures by the general uses and mix design criteria. If the class of concrete for a specific item of construction is not specified, Class SI concrete shall be used.

For the minimum cement factor in Table 1, it shall apply to portland cement, portland-pozzolan cement, and portland blast-furnace slag except when a particular cement is specified in the Table.

The Contractor shall not assume that the minimum cement factor indicated in Table 1 will produce a mixture that will meet the specified strength. In addition, the Contractor shall not assume that the maximum finely divided mineral allowed in a mix design according to Article 1020.05(c) will produce a mixture that will meet the specified strength. The Contractor shall select a cement factor within the allowable range that will obtain the specified strength. The Contractor shall take into consideration materials selected, seasonal temperatures, and other factors which may require the Contractor to submit multiple mix designs.

For a portland-pozzolan cement, portland blast-furnace slag cement, or when replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the portland cement content in the mixture shall be a minimum of 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). When calculating the portland cement portion in the portland-pozzolan or portland blast-furnace slag cement, the AASHTO M 240 tolerance may be ignored.

Special classifications may be made for the purpose of including the concrete for a particular use or location as a separate pay item in the contract. The concrete used in such cases shall conform to this section.

TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA

Class of Conc.	Use	Specification Section Reference	Cement Factor		Water / Cement Ratio lb/lb	Slump in. (4)	Mix Design Compressive Strength (Flexural Strength) psi, minimum			Air Content %	Coarse Aggregate Gradations (14)	
			cwt/cu yd (3)	Min.			Max	Days				
								3	14			28
PV	Pavement Base Course	420 or 421 353									CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, or CA 14	
	Base Course Widening	354	5.65 (1)	7.05	0.32 - 0.42	2 - 4	Ty III 3500 (650)	3500 (650)		5.0 - 8.0 (5)		
	Driveway Pavement	423	6.05 (2)									
	Shoulders	483										
	Shoulder Curb	662										
PP	Pavement Patching	442						3200 (600)			CA 7, CA 11, CA 13, CA 14, or CA 16	
	Bridge Deck Patching (10)						Article 701.17(e)(3)b.					
	PP-1		6.50 6.20 (Ty III)	7.50 7.20 (Ty III)	0.32 - 0.44	2 - 4	at 48 hours		4.0 - 7.0			
	PP-2		7.35	8.20	0.32 - 0.38	2 - 6	at 24 hours		4.0 - 6.0			
	PP-3		7.35 (Ty III) (8)	7.35 (Ty III) (8)	0.32 - 0.35	2 - 4	at 16 hours		4.0 - 6.0			
	PP-4		6.00 (9)	6.25 (9)	0.32 - 0.50	2 - 6	at 8 hours		4.0 - 6.0			
PP-5	6.75 (9)	6.75 (9)	0.32 - 0.40	2 - 8	at 4 hours		4.0 - 6.0					
RR	Railroad Crossing	422	6.50 6.20 (Ty III)	7.50 7.20 (Ty III)	0.32 - 0.44	2 - 4	3500 (650) at 48 hours		4.0 - 7.0	CA 7, CA 11, or CA 14		
BS	Bridge Superstructure	503	6.05	7.05	0.32 - 0.44	2 - 4 (5)		4000	5.0 - 8.0 (5)	CA 7, CA 11, or CA 14 (7)		
	Bridge Approach Slab							(675)				
PC	Various Precast Concrete Items	1042	5.65	7.05	0.32 - 0.44	1 - 4	See Section 1042		5.0 - 8.0	CA7, CA11, CA 13, CA 14, CA 16, or CA 7 & CA 16		
	Wet Cast		5.65 (TY III)	7.05 (TY III)	0.25 - 0.40	0 - 1			N/A			
PS	Precast Prestressed Members	504	5.65 5.65 (TY III)	7.05 7.05 (TY III)	0.32 - 0.44	1 - 4			Plans	5.0 - 8.0	CA 11 (11), CA 13, CA 14 (11), or CA 16	
	Precast Prestressed Piles and Extensions	512							5000			
	Precast Prestressed Sight Screen	639							3500			

TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA

Class of Conc.	Use	Specification Section Reference	Cement Factor		Water / Cement Ratio lb/lb	Slump in. (4)	Mix Design Compressive Strength (Flexural Strength) psi, minimum			Air Content %	Coarse Aggregate Gradations (14)	
			cwt/cu yd (3)	Min.			Max	Days				
								3	14			28
DS	Drilled Shaft (12) Metal Shell Piles (12) Sign Structures Drilled Shaft (12) Light Tower Foundation (12)	516 512 734 837	6.65	7.05	0.32 - 0.44	6 - 8 (6)		4000 (675)		5.0 - 8.0	CA 13, CA 14, CA 16, or a blend of these gradations.	
SC	Seal Coat	503	5.65 (1) 6.05 (2)	7.05	0.32 - 0.44	3 - 5		3500 (650)		Optional 6.0 max.	CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, or CA 11	
SI	Structures (except Superstructure) Sidewalk Slope Wall Encasement Box Culverts End Section and Collar Curb, Gutter, Curb & Gutter, Median, and Paved Ditch Concrete Barrier Sign Structures Spread Footing Concrete Foundation Pole Foundation (12) Traffic Signal Foundation Drilled Shaft (12) Square or Rectangular	503 424 511 512 540 542 606 637 734 836 878	5.65 (1) 6.05 (2)	7.05	0.32 - 0.44	2 - 4 (5)		3500 (650)		5.0 - 8.0 (5)	CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, CA 13, CA 14, or CA 16 (13)	

- Notes:
- (1) Central-mixed.
 - (2) Truck-mixed or shrink-mixed.
 - (3) For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the cement factor shall be increased by ten percent.
 - (4) The maximum slump may be increased to 7 in. when a high range water-reducing admixture is used for all classes of concrete, except Class PV, SC, and PP. For Class SC, the maximum slump may be increased to 8 in. For Class PP-1, the maximum slump may be increased to 6 in. For Class PS, the 7 in. maximum slump may be increased to 8 1/2 in. if the high range water-reducing admixture is the polycarboxylate type.
 - (5) The slump range for slipform construction shall be 1/2 to 2 1/2 in. and the air content range shall be 5.5 to 8.0 percent.
 - (6) If concrete is placed to displace drilling fluid, or against temporary casing, the slump shall be 8 - 10 in. at the point of placement. If a water-reducing admixture is used in lieu of a high range water-reducing admixture according to Article 1020.05(b)(7), the slump shall be 2 - 4 in.
 - (7) For Class BS concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching.
 - (8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 °F, the Type III portland cement may be replaced with Type I or II portland cement.
 - (9) The cement shall be a rapid hardening cement from the Department's "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs" for PP-4 and calcium aluminate cement for PP-5.
 - (10) For Class PP concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching. In addition, the mix design shall have 72 hours to obtain a 4,000 psi compressive or 675 psi flexural strength for all PP mix designs.
 - (11) The nominal maximum size permitted is 3/4 in. Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.
 - (12) The concrete mix shall be designed to remain fluid throughout the anticipated duration of the pour plus one hour. At the Engineer's discretion, the Contractor may be required to conduct a minimum 2 cu yd trial batch to verify the mix design.
 - (13) CA 3 or CA 5 may be used when the nominal maximum size does not exceed two-thirds the clear distance between parallel reinforcement bars, or between the reinforcement bar and the form. Nominal maximum size is defined in Note 11.
 - (14) Alternate combinations of gradation sizes may be used with the approval of the Engineer. Refer also to Article 1004.02(d) for additional information on combining sizes.

TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA (metric)											
Class of Conc.	Use	Specification Section Reference	Cement Factor		Water / Cement Ratio kg/kg	S l u m p mm (4)	Mix Design Compressive Strength (Flexural Strength) kPa, minimum			Air Content %	Coarse Aggregate Gradations (14)
			kg/cu m (3)				Days				
			Min.	Max			3	14	28		
PV	Pavement Base Course	420 or 421 353	335 (1) 360 (2)	418	0.32 - 0.42	50 - 100 (5)	Ty III 24,000 (4500)	24,000 (4500)		5.0 - 8.0 (5)	CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, or CA 14
	Base Course Widening	354									
	Driveway Pavement	423									
	Shoulders	483									
	Shoulder Curb	662									
PP	Pavement Patching Bridge Deck Patching (10)	442					22,100 (4150) Article 701.17(e)(3)b.				CA 7, CA 11, CA 13, CA 14, or CA 16
	PP-1		385 365 (Ty III)	445 425 (Ty III)	0.32 - 0.44	50 - 100	at 48 hours			4.0 - 7.0	
	PP-2		435	485	0.32 - 0.38	50 - 150	at 24 hours			4.0 - 6.0	
	PP-3		435 (Ty III) (8)	435 (Ty III) (8)	0.32 - 0.35	50 - 100	at 16 hours			4.0 - 6.0	
	PP-4		355 (9)	370 (9)	0.32 - 0.50	50 - 150	at 8 hours			4.0 - 6.0	
	PP-5		400 (9)	400 (9)	0.32 - 0.40	50 - 200	at 4 hours			4.0 - 6.0	
RR	Railroad Crossing	422	385 365 (Ty III)	445 425 (Ty III)	0.32 - 0.44	50 - 100	24,000 (4500) at 48 hours			4.0 - 7.0	CA 7, CA 11, or CA 14
BS	Bridge Superstructure Bridge Approach Slab	503	360	418	0.32 - 0.44	50 - 100 (5)		27,500 (4650)		5.0 - 8.0 (5)	CA 7, CA 11, or CA 14 (7)
PC	Various Precast Concrete Items Wet Cast Dry Cast	1042	335 335 (TY III)	418 418 (TY III)	0.32 - 0.44 0.25 - 0.40	25 - 100 0 - 25	See Section 1042			5.0 - 8.0 N/A	CA7, CA11, CA13, CA 14, CA 16, or CA 7 & CA 16
PS	Precast Prestressed Members	504	335 335 (TY III)	418 418 (TY III)	0.32 - 0.44	25 - 100			Plans	5.0 - 8.0	CA 11 (11), CA 13, CA 14 (11), or CA 16
	Precast Prestressed Piles and Extensions	512							34,500		
	Precast Prestressed Sight Screen	639							24,000		

TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA (metric)

Class of Conc.	Use	Specification Section Reference	Cement Factor		Water / Cement Ratio kg/kg	S l u m p mm (4)	Mix Design Compressive Strength (Flexural Strength)			Air Content %	Coarse Aggregate Gradations (14)
			kg/cu m (3)				kPa, minimum				
			Min.	Max			Days				
							3	14	28		
DS	Drilled Shaft (12) Metal Shell Piles (12) Sign Structures Drilled Shaft (12) Light Tower Foundation (12)	516 512 734 837	395	418	0.32 - 0.44	150 -200 (6)		27,500 (4650)		5.0 - 8.0	CA 13, CA 14, CA 16, or a blend of these gradations.
SC	Seal Coat	503	335 (1) 360 (2)	418	0.32 - 0.44	75 - 125		24,000 (4500)		Optional 6.0 max.	CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, or CA 11
SI	Structures (except Superstructure) Sidewalk Slope Wall Encasement Box Culverts End Section and Collar Curb, Gutter, Curb & Gutter, Median, and Paved Ditch Concrete Barrier Sign Structures Spread Footing Concrete Foundation Pole Foundation (12) Traffic Signal Foundation Drilled Shaft (12) Square or Rectangular	503 424 511 512 540 542 606 637 734 836 878	335 (1) 360 (2)	418	0.32 - 0.44	50 - 100 (5)		24,000 (4500)		5.0 - 8.0 (5)	CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, CA 13, CA 14, or CA 16 (13)

- Notes:
- (1) Central-mixed.
 - (2) Truck-mixed or shrink-mixed.
 - (3) For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the cement factor shall be increased by ten percent.
 - (4) The maximum slump may be increased to 175 mm when a high range water-reducing admixture is used for all classes of concrete except Class PV, SC, and PP. For Class SC, the maximum slump may be increased to 200 mm. For Class PP-1, the maximum slump may be increased to 150 mm. For Class PS, the 175 mm maximum slump may be increased to 215 mm if the high range water-reducing admixture is the polycarboxylate type.
 - (5) The slump range for slipform construction shall be 13 to 64 mm and the air content range shall be 5.5 to 8.0 percent.
 - (6) If concrete is placed to displace drilling fluid, or against temporary casing, the slump shall be 200 - 250 mm at the point of placement. If a water-reducing admixture is used in lieu of a high range water-reducing admixture according to Article 1020.05(b)(7), the slump shall be 50 – 100 mm.
 - (7) For Class BS concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching.
 - (8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 °C, the Type III portland cement may be replaced with Type I or II portland cement.
 - (9) The cement shall be a rapid hardening cement from the Department's "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs" for PP-4 and calcium aluminate cement for PP-5.
 - (10) For Class PP concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching. In addition, the mix design shall have 72 hours to obtain a 27,500 kPa compressive or 4,650 kPa flexural.
 - (11) The nominal maximum size permitted is 19 mm. Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.
 - (12) The concrete mix shall be designed to remain fluid throughout the anticipated duration of the pour plus one hour. At the Engineer's discretion, the Contractor may be required to conduct a minimum 1.5 cu m trial batch to verify the mix design.
 - (13) CA 3 or CA 5 may be used when the nominal maximum size does not exceed two-thirds the clear distance between parallel reinforcement bars, or between the reinforcement bar and the form. Nominal maximum size is defined in Note 11.
 - (14) Alternate combinations of gradation sizes may be used with the approval of the Engineer. Refer also to Article 1004.02(d) for additional information on combining sizes.

Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation. Self-consolidating concrete mix designs may be developed for Class BS, PC, PS, DS, and SI concrete. Self-consolidating concrete mix designs may also be developed for precast concrete products that are not subjected to Class PC concrete requirements according to Section 1042. The mix design criteria for the concrete mixture shall be according to Article 1020.04 with the following exceptions.

- (a) The slump requirements shall not apply.
- (b) The concrete mixture should be uniformly graded, and information in the "Portland Cement Concrete Level III Technician Course – Manual of Instructions for Design of Concrete Mixtures" may be used to develop the uniformly graded mix design. The coarse aggregate gradations shall be CA 11, CA 13, CA 14, CA 16, or a blend of these gradations. However, the final gradation when using a single coarse aggregate or combination of coarse aggregates shall have 100 percent pass the 1 in. (25 mm) sieve, and minimum 95 percent pass the 3/4 in. (19 mm) sieve. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (c) The slump flow range shall be 22 in. (560 mm) minimum to 28 in. (710 mm) maximum and tested according to Illinois Test Procedure SCC-2.
- (d) The visual stability index shall be a maximum of 1 and tested according to Illinois Test Procedure SCC-2.
- (e) The J-Ring value shall be a maximum of 2 in. (50 mm) and tested according to Illinois Test Procedure SCC-3. The L-Box blocking ratio shall be a minimum of 80 percent and tested according to Illinois Test Procedure SCC-3. The Contractor has the option to select either test.
- (f) The hardened visual stability index shall be a maximum of 1 and tested according to Illinois Test Procedure SCC-6.
- (g) If Class PC concrete requirements do not apply to the precast concrete product according to Section 1042, the maximum cement factor shall be 7.05 cwt/cu yd (418 kg/cu m) and the maximum allowable water/cement ratio shall be 0.44.
- (h) If the measured slump flow, visual stability index, J-Ring value, or L-Box blocking ratio fall outside the limits specified, a check test will be made. In the event of a second failure, the Engineer may refuse to permit the use of the batch of concrete represented.

The Contractor may use water or self-consolidating admixtures at the jobsite to obtain the specified slump flow, visual stability index, J-ring value, or L-box blocking ratio. The maximum design water/cement ratio shall not be exceeded.

1020.05 Other Concrete Criteria. The concrete shall be according to the following.

- (a) **Proportioning and Mix Design.** For all Classes of concrete, it shall be the Contractor's responsibility to determine mix design material proportions and to proportion each batch of concrete. A Level III PCC Technician shall develop the mix design for all Classes of concrete, except Classes PC and PS. The mix design, submittal information, trial batch, and Engineer verification shall be according to the "Portland Cement Concrete Level III Technician" course material.

The Contractor shall provide the mix designs a minimum of 45 calendar days prior to production. More than one mix design may be submitted for each class of concrete.

The Engineer will verify the mix design submitted by the Contractor. Verification of a mix design shall in no manner be construed as acceptance of any mixture produced. Once a mix design has been verified, the Engineer shall be notified of any proposed changes.

Tests performed at the jobsite will determine if a mix design can meet specifications. If the tests indicate it cannot, the Contractor shall make adjustments to a mix design, or submit a new mix design if necessary, to comply with the specifications.

- (b) Admixtures. The Contractor shall be responsible for using admixtures and determining dosages for all Classes of concrete, cement aggregate mixture II, and controlled low-strength material that will produce a mixture with suitable workability, consistency, and plasticity. In addition, admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Contractor shall obtain approval from the Engineer to use an accelerator when the concrete temperature is greater than 60 °F (16 °C). However, this accelerator approval by the Engineer will not be required for Class PP, RR, PC, and PS concrete. The accelerator shall be the non-chloride type unless otherwise specified in the contract plans.

The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(10). For information on approved controlled low-strength material air-entraining admixtures, refer to Article 1019.02. The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted by the Contractor prior to the pour when determining an admixture dosage from this list or when making minor admixture dosage adjustments at the jobsite. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays.

The sequence, method, and equipment for adding the admixtures shall be approved by the Engineer. Admixtures shall be added to the concrete separately. An accelerator shall always be added prior to a high range water-reducing admixture, if both are used.

Admixture use shall be according to the following.

- (1) When the atmosphere or concrete temperature is 65 °F (18 °C) or higher, a retarding admixture shall be used in the Class BS concrete and concrete bridge deck overlays. The proportions of the ingredients of the concrete shall be the same as without the retarding admixture, except that the amount of mixing water shall be reduced, as may be necessary, in order to maintain the consistency of the concrete as required. In addition, a high range water-reducing admixture shall be used in bridge deck concrete. At the option of the Contractor, a water-reducing admixture may be used with the high range water-reducing admixture in Class BS concrete.

- (2) At the Contractor's option, admixtures in addition to an air-entraining admixture may be used for Class PP-1 or RR concrete. When the air temperature is less than 55 °F (13 °C) and an accelerator is used, the non-chloride accelerator shall be calcium nitrite.
- (3) When Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 or RR concrete, a water-reducing or high range water-reducing admixture shall be used.
- (4) For Class PP-2 or PP-3 concrete, a non-chloride accelerator followed by a high range water-reducing admixture shall be used, in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture with the high range water-reducing admixture. For Class PP-3 concrete, the non-chloride accelerator shall be calcium nitrite. For Class PP-2 concrete, the non-chloride accelerator shall be calcium nitrite when the air temperature is less than 55 °F (13 °C).
- (5) For Class PP-4 concrete, a high range water-reducing admixture shall be used in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture with the high range water-reducing admixture. An accelerator shall not be used. For stationary or truck-mixed concrete, a retarding admixture shall be used to allow for haul time. The Contractor has the option to use a mobile portland cement concrete plant, but a retarding admixture shall not be used unless approved by the Engineer.

For PP-5 concrete, a non-chloride accelerator, high range water-reducing admixture, and air-entraining admixture shall be used. The accelerator, high range water-reducing admixture, and air-entraining admixture shall be per the Contractor's recommendation and dosage. The approved list of concrete admixtures shall not apply. A mobile portland cement concrete plant shall be used to produce the patching mixture.

- (6) When a calcium chloride accelerator is specified in the contract, the maximum chloride dosage shall be 1.0 quart (1.0 L) of solution per 100 lb (45 kg) of cement. The dosage may be increased to a maximum 2.0 quarts (2.0 L) per 100 lb (45 kg) of cement if approved by the Engineer. When a calcium chloride accelerator for Class PP-2 concrete is specified in the contract, the maximum chloride dosage shall be 1.3 quarts (1.3 L) of solution per 100 lb (45 kg) of cement. The dosage may be increased to a maximum 2.6 quarts (2.6 L) per 100 lb (45 kg) of cement if approved by the Engineer.
- (7) For Class DS concrete a retarding admixture and a high range water-reducing admixture shall be used. For dry excavations that are 10 ft (3 m) or less, the high range water-reducing admixture may be replaced with a water-reducing admixture if the concrete is vibrated. The use of admixtures shall take into consideration the slump loss limits specified in Article 516.12 and the fluidity requirement in Article 1020.04 (Note 12).
- (8) At the Contractor's option, when a water-reducing admixture or a high range water-reducing admixture is used for Class PV, PP-1, RR, SC, and SI concrete, the cement factor may be reduced a maximum 0.30 hundredweight/cu yd (18 kg/cu m). However, a cement factor reduction will not be allowed for concrete placed underwater.

- (9) When Type F or Type G high range water-reducing admixtures are used, the initial slump shall be a minimum of 1 1/2 in. (40 mm) prior to addition of the Type F or Type G admixture, except as approved by the Engineer.
- (10) When specified, a corrosion inhibitor shall be added to the concrete mixture utilized in the manufacture of precast, prestressed concrete members and/or other applications. It shall be added, at the same rate, to all grout around post-tensioning steel when specified.

When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m), and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch.

When Rheocrete 222+ is used, it shall be added at the rate of 1.0 gal/cu yd (5.0 L/cu m), and the batching sequence shall be according to the manufacturer's instructions.

- (c) Finely Divided Minerals. Use of finely divided minerals shall be according to the following.

- (1) Fly Ash. At the Contractor's option, fly ash from approved sources may partially replace portland cement in cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete.

The use of fly ash shall be according to the following.

- a. Measurements of fly ash and portland cement shall be rounded up to the nearest 5 lb (2.5 kg).
 - b. When Class F fly ash is used in cement aggregate mixture II, Class PV, BS, PC, PS, DS, SC, and SI concrete, the amount of portland cement replaced shall not exceed 25 percent by weight (mass).
 - c. When Class C fly ash is used in cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, the amount of portland cement replaced shall not exceed 30 percent by weight (mass).
 - d. Fly ash may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.
- (2) Ground Granulated Blast-Furnace (GGBF) Slag. At the Contractor's option, GGBF slag may partially replace portland cement in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete. For Class PP-3 concrete, GGBF slag shall be used according to Article 1020.04.

The use of GGBF slag shall be according to the following.

- a. Measurements of GGBF slag and portland cement shall be rounded up to the nearest 5 lb (2.5 kg).

- b. When GGBF slag is used in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC and SI concrete, the amount of portland cement replaced shall not exceed 35 percent by weight (mass).
 - c. GGBF slag may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.
- (3) Microsilica. At the Contractor's option, microsilica may be added at a maximum of 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.

Microsilica shall be used in Class PP-3 concrete according to Article 1020.04.

- (4) High Reactivity Metakaolin (HRM). At the Contractor's option, HRM may be added at a maximum of 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.
- (5) Mixtures with Multiple Finely Divided Minerals. Except as specified for Class PP-3 concrete, the Contractor has the option to use more than one finely divided mineral in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete as follows.
- a. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in portland-pozzolan cement or portland blast-furnace slag cement shall count toward the total number of finely divided minerals allowed. The finely divided minerals shall constitute a maximum of 35.0 percent of the total cement plus finely divided minerals. The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed ten percent. The finely divided mineral in the portland-pozzolan cement or portland blast-furnace slag blended cement shall apply to the maximum 35.0 percent.
 - b. Central Mixed. For Class PV, SC, and SI concrete, the mixture shall contain a minimum of 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used, the Contractor has the option to use a minimum of 535 lbs/cu yd (320 kg/cu m).
 - c. Truck-Mixed or Shrink-Mixed. For Class PV, SC, and SI concrete, the mixture shall contain a minimum of 605 lbs/cu yd (360 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used, the Contractor has the option to use a minimum of 575 lbs/cu yd (345 kg/cu m).
 - d. Central-Mixed, Truck-Mixed or Shrink-Mixed. For Class PP-1 and RR concrete, the mixture shall contain a minimum of 650 lbs/cu yd (385 kg/cu m) of cement and finely divided minerals summed together. For Class PP-1 and RR concrete using Type III portland cement, the mixture shall contain a minimum of 620 lbs/cu yd (365 kg/cu m).

For Class PP-2 concrete, the mixture shall contain a minimum of 735 lbs/cu yd (435 kg/cu m) of cement and finely divided minerals summed together. For Class BS concrete, the mixture shall contain a minimum of 605 lbs/cu yd (360 kg/cu m). For Class DS concrete, the mixture shall contain a minimum of 665 lbs/cu yd (395 kg/cu m).

If a water-reducing or high range water-reducing admixture is used in Class PP-1 and RR concrete, the Contractor has the option to use a minimum of 620 lbs/cu yd (365 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used with Type III portland cement in Class PP-1 and RR concrete, the Contractor has the option to use a minimum of 590 lbs/cu yd (350 kg/cu m).

- e. Central-Mixed or Truck-Mixed. For Class PC and PS concrete, the mixture shall contain a minimum of 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together.
 - f. The mixture shall contain a maximum of 705 lbs/cu yd (418 kg/cu m) of cement and finely divided mineral(s) summed together for Class PV, BS, PC, PS, DS, SC, and SI concrete. For Class PP-1 and RR concrete, the mixture shall contain a maximum of 750 lbs/cu yd (445 kg/cu m). For Class PP-1 and RR concrete using Type III portland cement, the mixture shall contain a maximum of 720 lbs/cu yd (425 kg/cu m). For Class PP-2 concrete, the mixture shall contain a maximum of 820 lbs/cu yd (485 kg/cu m).
 - g. For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the allowable cement and finely divided minerals summed together shall be increased by ten percent.
 - h. The combination of cement and finely divided minerals shall comply with Article 1020.05(d).
- (d) Alkali-Silica Reaction. For cast-in-place (includes cement aggregate mixture II and latex mixtures), precast, and precast prestressed concrete, one of the mixture options provided in Article 1020.05(d)(2) shall be used to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The mixture options are not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate, or sodium formate. The mixture options will not be required for the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy.

The mixture options shall not apply to concrete revetment mats, insertion lining of pipe culverts, portland cement mortar fairing course, controlled low-strength material, miscellaneous grouts that are not prepackaged, Class PP-3 concrete, Class PP-4 concrete, and Class PP-5 concrete.

- (1) Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

Aggregate Groups			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate Or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤0.16%	>0.16% - 0.27%	>0.27%
≤0.16%	Group I	Group II	Group III
>0.16% - 0.27%	Group II	Group II	Group III
>0.27%	Group III	Group III	Group IV

- (2) Mixture Options. Based upon the aggregate group, the following mixture options shall be used. However, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Reduction of Risk for Deleterious Alkali-Silica Reaction					
Aggregate Groups	Mixture Options				
	Option 1	Option 2	Option 3	Option 4	Option 5
Group I	Mixture options are not applicable. Use any cement or finely divided mineral.				
Group II	X	X	X	X	X
Group III	X	Combine Option 2 with Option 3	Combine Option 2 with Option 3	X	X
Group IV	X	Combine Option 2 with Option 4	Invalid Option	Combine Option 2 with Option 4	X

“X” denotes valid mixture option for aggregate group.

- a. Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used. Coarse aggregate may only be blended with another coarse aggregate. Fine aggregate may only be blended with another fine aggregate. Blending of coarse with fine aggregate to place the material in another group will not be permitted.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

$$\text{Weighted Expansion Value} = (a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$$

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C... = expansion value for that aggregate.

- b. Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. In addition, a blended cement with a finely divided mineral may be added to a separate finely divided mineral to meet the following requirements, provided the finely divided minerals are the same material. However, adding together two different finely divided minerals to obtain the specified minimum percentage of one material will not be permitted for 1), 2), 3), and 4). Refer to Mixture Option 5 to address this situation.

1. Class F Fly Ash. For cement aggregate mixture II, Class PV, BS, PC, PS, MS, DS, SC and SI concrete, the Class F fly ash shall be a minimum 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 4.50 percent for the Class F fly ash, it may be used only if it complies with Mixture Option 5.

2. Class C Fly Ash. For cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, Class C fly ash shall be a minimum of 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 4.50 percent or the calcium oxide exceeds 26.50 percent for the Class C fly ash, it may be used only per Mixture Option 5.

3. Ground Granulated Blast-Furnace Slag. For Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, ground granulated blast-furnace slag shall be a minimum of 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 1.00 percent for the ground granulated blast-furnace slag, it may be used only per Mixture Option 5.

4. Microsilica or High Reactivity Metakaolin, Microsilica solids or high reactivity metakaolin shall be a minimum 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 1.00 percent for the Microsilica or High Reactivity Metakaolin, it may be used only if it complies with Mixture Option 5.

- c. Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.60 percent. When aggregate in Group II is involved and the Contractor desires to use a finely divided mineral, any finely divided mineral may be used with the cement unless the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 4.50 percent for the fly ash; or 1.00 percent for the ground granulated blast-furnace slag, microsilica or high reactivity metakaolin. If the alkali content is exceeded, the finely divided mineral may be used only per Mixture Option 5.
- d. Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.45 percent. When aggregate in Group II or III is involved and the Contractor desires to use a finely divided mineral, any finely divided mineral may be used with the cement unless the maximum total equivalent available alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) exceeds 4.50 percent for the fly ash; or 1.00 percent for the ground granulated blast-furnace slag, microsilica, or high reactivity metakaolin. If the alkali content is exceeded, the finely divided mineral may be used only per Mixture Option 5.
- e. Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The laboratory performing the ASTM C 1567 test shall be approved by the Department according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Laboratory Requirements for Alkali-Silica Reactivity (ASR) Testing". The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly.

For latex concrete, the ASTM C 1567 test shall be performed without the latex.

The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$), a new ASTM C 1567 test will not be required.

The Engineer reserved the right to verify a Contractor's ASTM C 1567 test result. When the Contractor performs the test, a split sample may be requested by the Engineer. The Engineer may also independently obtain a sample at any time. The proposed cement or finely divided mineral will not be allowed for use if the Contractor or Engineer obtains an expansion value greater than 0.16 percent.

1020.06 Water/Cement Ratio. The water/cement ratio shall be determined on a weight (mass) basis. When a maximum water/cement ratio is specified, the water shall include mixing water, water in admixtures, free moisture on the aggregates, and water added at the jobsite. The quantity of water may be adjusted within the limit specified to meet slump requirements.

When fly ash, ground granulated blast-furnace slag, high-reactivity metakaolin, or microsilica (silica fume) are used in a concrete mix, the water/cement ratio will be based on the total cement and finely divided minerals contained in the mixture.

1020.07 Slump. The slump shall be determined according to Illinois Modified AASHTO T 119.

If the measured slump falls outside the limits specified, a check test will be made. In the event of a second failure, the Engineer may refuse to permit the use of the batch of concrete represented.

If the Contractor is unable to add water to prepare concrete of the specified slump without exceeding the maximum design water/cement ratio, a water-reducing admixture shall be added.

1020.08 Air Content. The air content shall be determined according to Illinois Modified AASHTO T 152 or Illinois Modified AASHTO T 196. The air-entrainment shall be obtained by the use of cement with an approved air-entraining admixture added during the mixing of the concrete or the use of air-entraining cement.

If the air-entraining cement furnished is found to produce concrete having air content outside the limits specified, its use shall be discontinued immediately and the Contractor shall provide other air-entraining cement which will produce air contents within the specified limits.

If the air content obtained is above the specified maximum limit at the jobsite, the Contractor may have the concrete further mixed, within the limits of time and revolutions specified, to reduce the air content. If the air content obtained is below the specified minimum limit, the Contractor may add to the concrete a sufficient quantity of an approved air-entraining admixture at the jobsite to bring the air content within the specified limits.

1020.09 Strength Tests. The specimens shall be molded and cured according to Illinois Modified AASHTO T 23. Specimens shall be field cured with the construction item as specified in Illinois Modified AASHTO T 23. The compressive strength shall be determined according to Illinois Modified AASHTO T 22. The flexural strength shall be determined according to Illinois Modified AASHTO T 177.

Except for Class PC and PS concrete, the Contractor shall transport the strength specimens from the site of the work to the field laboratory or other location as instructed by the Engineer. During transportation in a suitable light truck, the specimens shall be embedded in straw, burlap, or other acceptable material in a manner meeting with the approval of the Engineer to protect them from damage; care shall be taken to avoid impacts during hauling and handling. For strength specimens, the Contractor shall provide a field curing box for initial curing and a water storage tank for final curing. The field curing box will be required when an air temperature below 60 °F (16 °C) is expected during the initial curing period. The device shall maintain the initial curing temperature range specified in Illinois Modified AASHTO T 23, and may be insulated or power operated as appropriate.

1020.10 Handling, Measuring, and Batching Materials. Aggregates shall be handled in a manner to prevent mixing with soil and other foreign material.

Aggregates shall be handled in a manner which produces a uniform gradation, before placement in the plant bins. Aggregates delivered to the plant in a nonuniform gradation condition shall be stockpiled. The stockpiled aggregate shall be mixed uniformly before placement in the plant bins.

Aggregates shall have a uniform moisture content before placement in the plant bins. This may require aggregates to be stockpiled for 12 hours or more to allow drainage, or water added to the stockpile, or other methods approved by the Engineer. Moisture content requirements for crushed concrete, crushed slag or lightweight aggregate shall be according to Article 1004.01(e)(5).

Aggregates, cement, and finely divided minerals shall be measured by weight (mass). Water and admixtures shall be measured by volume or weight (mass).

The Engineer may permit aggregates, cement, and finely divided minerals to be measured by volume for small isolated structures and for miscellaneous items. Aggregates, cement, and finely divided minerals shall be measured individually. The volume shall be based upon dry, loose materials.

1020.11 Mixing Portland Cement Concrete. The mixing of concrete shall be according to the following.

- (a) Ready-Mixed Concrete. Ready-mixed concrete is central-mixed, truck-mixed, or shrink-mixed concrete transported and delivered in a plastic state ready for placement in the work and shall be according to the following.
 - (1) Central-Mixed Concrete. Central-mixed concrete is concrete which has been completely mixed in a stationary mixer and delivered in a truck agitator, a truck mixer operating at agitating speed, or a nonagitator truck.

The stationary mixer shall operate at the drum speed for which it was designed. The batch shall be charged into the drum so that some of the water shall enter in advance of the cement, finely divided minerals, and aggregates. The flow of the water shall be uniform and all water shall be in the drum by the end of the first 15 seconds of the mixing period. Water shall begin to enter the drum from zero to two seconds in advance of solid material and shall stop flowing within two seconds of the beginning of mixing time.

Some coarse aggregate shall enter in advance of other solid materials. For the balance of the charging time for solid materials, the aggregates, finely divided minerals, and cement (to assure thorough blending) shall each flow at acceptably uniform rates, as determined by visual observation. Coarse aggregate shall enter two seconds in advance of other solid materials and a uniform rate of flow shall continue to within two seconds of the completion of charging time.

The entire contents of the drum, or of each single compartment of a multiple-drum mixer, shall be discharged before the succeeding batch is introduced.

The volume of concrete mixed per batch shall not exceed the mixer's rated capacity as shown on the standard rating plate on the mixer by more than ten percent.

The minimum mixing time shall be 75 seconds for a stationary mixer having a capacity greater than 2 cu yd (1.5 cu m). For a mixer with a capacity equal to or less than 2 cu yd (1.5 cu m) the mixing time shall be 60 seconds. Transfer time in multiple drum mixers is included in the mixing time. Mixing time shall begin when all materials are in the mixing compartment and shall end when the discharge of any part of the batch is started. The required mixing times will be established by the Engineer for all types of stationary mixers.

When central-mixed concrete is to be transported in a truck agitator or a truck mixer, the stationary-mixed batch shall be transferred to the agitating unit without delay and without loss of any portion of the batch. Agitating shall start immediately thereafter and shall continue without interruption until the batch is discharged from the agitator. The ingredients of the batch shall be completely discharged from the agitator before the succeeding batch is introduced. Drums and auxiliary parts of the equipment shall be kept free from accumulations of materials.

The vehicles used for transporting the mixed concrete shall be of such capacity, or the batches shall be so proportioned, that the entire contents of the mixer drum can be discharged into each vehicle load.

- (2) **Truck-Mixed Concrete.** Truck-mixed concrete is completely mixed and delivered in a truck mixer. When the mixer is charged with fine and coarse aggregates simultaneously, not less than 60 nor more than 100 revolutions of the drum or blades at mixing speed shall be required, after all of the ingredients including water are in the drum. When fine and coarse aggregates are charged separately, not less than 70 revolutions will be required. For self-consolidating concrete, a minimum of 100 revolutions is required in all cases. Additional mixing beyond 100 revolutions shall be at agitating speed unless additions of water, admixtures, or other materials are made at the jobsite. The mixing operation shall begin immediately after the cement and water, or the cement and wet aggregates, come in contact. The ingredients of the batch shall be completely discharged from the drum before the succeeding batch is introduced. The drum and auxiliary parts of the equipment shall be kept free from accumulations of materials. If additional water or an admixture is added at the jobsite, the concrete batch shall be mixed a minimum of 40 additional revolutions after each addition.
- (3) **Shrink-Mixed Concrete.** Shrink-mixed concrete is mixed partially in a stationary mixer and completed in a truck mixer for delivery. The mixing time of the stationary mixer may be reduced to a minimum of 30 seconds to intermingle the ingredients, before transferring to the truck mixer. All ingredients for the batch shall be in the stationary mixer and partially mixed before any of the mixture is discharged into the truck mixer. The partially mixed batch shall be transferred to the truck mixer without delay and without loss of any portion of the batch, and mixing in the truck mixer shall start immediately. The mixing time in the truck mixer shall be not less than 50 nor more than 100 revolutions of the drum or blades at mixing speed. For self-consolidating concrete, a minimum of 100 revolutions is required in the truck mixer. Additional mixing beyond 100 revolutions shall be at agitating speed, unless additions of water, admixtures, or other materials are made at the jobsite. Units designed as agitators shall not be used for shrink mixing. The ingredients of the batch shall be completely discharged from the drum before the succeeding batch is introduced. The drum and auxiliary parts of the equipment shall be kept free from accumulations of materials. If additional water or an admixture is added at the jobsite, the concrete batch shall be mixed a minimum of 40 additional revolutions after each addition.

- (4) **Mixing Water.** Wash water shall be completely discharged from the drum or container before a batch is introduced. All mixing water shall be added at the plant and any adjustment of water at the jobsite by the Contractor shall not exceed the specified maximum water/cement ratio or slump. If strength specimens have been made for a batch of concrete, and subsequently during discharge there is more water added, additional strength specimens shall be made for the batch of concrete. No additional water may be added at the jobsite to central-mixed concrete if the mix design has less than 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together.
- (5) **Mixing and Agitating Speeds.** The mixing or agitating speeds used for truck mixers or truck agitators shall be per the manufacturer's rating plate.
- (6) **Capacities.** The volume of plastic concrete in a given batch will be determined according to AASHTO T 121, based on the total weight (mass) of the batch, determined either from the weight (masses) of all materials, including water, entering the batch or directly from the net weight (mass) of the concrete in the batch as delivered.

The volume of mixed concrete in truck mixers or truck agitators shall in no case be greater than the rated capacity determined according to the Truck Mixer, Agitator, and Front Discharge Concrete Carrier Standards of the Truck Mixer Manufacturer's Bureau, as shown by the rating plate attached to the truck. If the truck mixer does not have a rating plate, the volume of mixed concrete shall not exceed 63 percent of the gross volume of the drum or container, disregarding the blades. For truck agitators, the value is 80 percent.

- (7) **Time of Haul.** Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work.

The time elapsing from when water is added to the mix until it is deposited in place at the site of the work shall not exceed 30 minutes when the concrete is transported in nonagitating trucks.

The maximum haul time for concrete transported in truck mixers or truck agitators shall be according to the following.

Concrete Temperature at Point of Discharge °F (°C)	Haul Time	
	Hours	Minutes
50-64 (10-17.5)	1	30
>64 (>17.5) - without retarder	1	0
>64 (>17.5) - with retarder	1	30

To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer.

- (8) Production and Delivery. The production of ready-mixed concrete shall be such that the operations of placing and finishing will be continuous insofar as the job operations require. The Contractor shall be responsible for producing concrete that will have the required workability, consistency, and plasticity when delivered to the work. Concrete which is unsuitable for placement as delivered will be rejected. The Contractor shall minimize the need to adjust the mixture at the jobsite, such as adding water and admixtures prior to discharging.
- (9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.
 - a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.
 - b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.
 - c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.
 - d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.

- e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for strength shall not exceed 900 psi (6200 kPa) compressive and 90 psi (620 kPa) flexural. If the strength difference requirements are exceeded, the Contractor shall take corrective action.
 - f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete.
- (b) Class PC Concrete. The concrete shall be central-mixed or truck-mixed. Variations in plastic concrete properties shall be minimized between batches.
- (c) Class PV Concrete. The concrete shall be central-mixed, truck-mixed, or shrink-mixed.

The required mixing time for stationary mixers with a capacity greater than 2 cu yd (1.5 cu m) may be less than 75 seconds upon satisfactory completion of a mixer performance test. Mixer performance tests may be requested by the Contractor when the quantity of concrete to be placed exceeds 50,000 sq yd (42,000 sq m). The testing shall be conducted according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Field Test Procedures for Mixer Performance and Concrete Uniformity Tests".

The Contractor will be allowed to test two mixing times within a range of 50 to 75 seconds. If satisfactory results are not obtained from the required tests, the mixing time shall continue to be 75 seconds for the remainder of the contract. If satisfactory results are obtained, the mixing time may be reduced. In no event will mixing time be less than 50 seconds.

The Contractor shall furnish the labor, equipment, and material required to perform the testing according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Field Test Procedures for Mixer Performance and Concrete Uniformity Tests".

A contract which has 12 ft (3.6 m) wide pavement or base course, and a continuous length of 1/2 mile (0.8 km) or more, shall have the following additional requirements.

- (1) The plant and truck delivery operation shall be able to provide a minimum of 50 cu yd (38 cu m) of concrete per hour.
- (2) The plant shall have automatic or semi-automatic batching equipment.

- (d) All Other Classes of Concrete. The concrete shall be central-mixed, truck-mixed, or shrink-mixed concrete.

1020.12 Mobile Portland Cement Concrete Plants. The use of a mobile portland cement concrete plant may be approved under the provisions of Article 1020.10 for volumetric proportioning in small isolated structures, thin overlays, and for miscellaneous and incidental concrete items.

The first 1 cu ft (0.03 cu m) of concrete produced may not contain sufficient mortar and shall not be incorporated in the work. The side plate on the cement feeder shall be removed periodically (normally the first time the mixer is used each day) to see if cement is building up on the feed drum.

Sufficient mixing capacity of mixers shall be provided to enable continuous placing and finishing insofar as the job operations and the specifications require.

Slump and air tests made immediately after discharge of the mix may be misleading, since the aggregates may absorb a significant amount of water for four or five minutes after mixing.

1020.13 Curing and Protection. The method of curing, curing period, and method of protection for each type of concrete construction is included in the following Index Table.

INDEX TABLE OF CURING AND PROTECTION OF CONCRETE CONSTRUCTION			
TYPE OF CONSTRUCTION	CURING METHODS	CURING PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete ^{11/}			
Pavement			
Shoulder	1020.13(a)(1)(2)(3)(4)(5) ^{3/ 5/}	3	1020.13(c)
Base Course			
Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) ^{2/}	3	1020.13(c)
Driveway			
Median			
Barrier			
Curb			
Gutter	1020.13(a)(1)(2)(3)(4)(5) ^{4/ 5/}	3	1020.13(c) ^{16/}
Curb & Gutter			
Sidewalk			
Slope Wall			
Paved Ditch			
Catch Basin			
Manhole	1020.13(a)(1)(2)(3)(4)(5) ^{4/}	3	1020.13(c)
Inlet			
Valve Vault			
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) ^{2/}	3 ^{12/}	1020.13(c)
Bridge Deck Patching	1020.13(a)(3)(5)	3 or 7 ^{12/}	1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles and Drilled Shafts	1020.13(a)(3)(5)	7	1020.13(d)(1)(2)(3)
Foundations & Footings			
Seal Coat	1020.13(a)(1)(2)(3)(4)(5) ^{4/ 6/}	7	1020.13(d)(1)(2)(3)
Substructure	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 7/}	7	1020.13(d)(1)(2)(3)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5) ^{8/}	7	1020.13(d)(1)(2)
Deck			
Bridge Approach Slab	1020.13(a)(5)	7	1020.13(d)(1)(2) ^{17/}
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 7/}	7	1020.13(d)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) ^{1/}	7	1020.13(d)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) ^{4/ 6/}	7	1020.13(d)(1)(2) ^{18/}
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete ^{11/}			
Bridge Slabs			
Piles and Pile Caps	1020.13(a)(3)(5) ^{9/ 10/}	As ^{13/}	9/
Other Structural Members		Required	
All Other Precast Items	1020.13(a)(3)(4)(5) ^{2/ 9/ 10/}	As ^{14/}	9/
		Required	
Precast, Prestressed Concrete ^{11/}			
All Items	1020(a)(3)(5) ^{9/ 10/}	Until Strand Tensioning is Released ^{15/}	9/

Notes-General:

- 1/ Type I, membrane curing only
- 2/ Type II, membrane curing only
- 3/ Type III, membrane curing only
- 4/ Type I, II and III membrane curing
- 5/ Membrane Curing will not be permitted between November 1 and April 15.
- 6/ The use of water to inundate foundations and footings, seal coats or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 45 °F (7 °C) or higher.

- 7/ Asphalt emulsion for waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18.
- 8/ On non-traffic surfaces which receive protective coat according to Article 503.19, a linseed oil emulsion curing compound may be used as a substitute for protective coat and other curing methods. The linseed oil emulsion curing compound will be permitted between April 16 and October 31 of the same year, provided it is applied with a mechanical sprayer according to Article 1101.09(b).
- 9/ Steam, supplemental heat, or insulated blankets (with or without steam/supplemental heat) are acceptable and shall be according to the Bureau of Materials and Physical Research's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products" and the "Manual for Fabrication of Precast, Prestressed Concrete Products".
- 10/ A moist room according to AASHTO M 201 is acceptable for curing.
- 11/ If curing is required and interrupted because of form removal for cast-in-place concrete items, precast concrete products, or precast prestressed concrete products, the curing shall be resumed within two hours from the start of the form removal.
- 12/ Curing maintained only until opening strength is attained for pavement patching, with a maximum curing period of three days. For bridge deck patching the curing period shall be three days if Class PP concrete is used and 7 days if Class BS concrete is used.
- 13/ The curing period shall end when the concrete has attained the mix design strength. The producer has the option to discontinue curing when the concrete has attained 80 percent of the mix design strength or after seven days. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 14/ The producer shall determine the curing period or may elect to not cure the product. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 15/ The producer has the option to continue curing after strand release.
- 16/ When structural steel or structural concrete is in place above slope wall, Article 1020.13(c) shall not apply. The protection method shall be according to Article 1020.13(d)(1).
- 17/ When Article 1020.13(d)(2) is used to protect the deck, the housing may enclose only the bottom and sides. The top surface shall be protected according to Article 1020.13(d)(1).
- 18/ For culverts having a waterway opening of 10 sq ft (1 sq m) or less, the culverts may be protected according to Article 1020.13(d)(3).

(a) Methods of Curing. Except as provided for in the Index Table of Curing and Protection of Concrete Construction, curing shall be accomplished by one of the following described methods. When water is required to wet the surface, it shall be applied as a fine spray so that it will not mar or pond on the surface. Except where otherwise specified, the curing period shall be at least 72 hours.

(1) Waterproof Paper Method. The surface of the concrete shall be covered with waterproof paper as soon as the concrete has hardened sufficiently to prevent marring the surface. The surface of the concrete shall be wetted immediately before the paper is placed. The blankets shall be lapped at least 12 in. (300 mm) end to end, and these laps shall be securely weighted with a windrow of earth, or other approved method, to form a closed joint. The same requirements shall apply to the longitudinal laps where separate strips are used for curing edges, except the lap shall be at least 9 in. (225 mm). The edges of the blanket shall be weighted securely with a continuous windrow of earth or any other means satisfactory to the Engineer to provide an air-tight cover. Any torn places or holes in the paper shall be repaired immediately by patches cemented over the openings, using a bituminous cement having a melting point of not less than 180 °F (82 °C). The blankets may be reused, provided they are air-tight and kept serviceable by proper repairs.

A longitudinal pleat shall be provided in the blanket to permit shrinkage where the width of the blanket is sufficient to cover the entire surface. The pleat will not be required where separate strips are used for the edges. Joints in the blanket shall be sewn or cemented together in such a manner that they will not separate during use.

(2) Polyethylene Sheeting Method. The surface of the concrete shall be covered with white polyethylene sheeting as soon as the concrete has hardened sufficiently to prevent marring the surface. The surface of the concrete shall be wetted immediately before the sheeting is placed. The edges of the sheeting shall be weighted securely with a continuous windrow of earth or any other means satisfactory to the Engineer to provide an air-tight cover. Adjoining sheets shall overlap not less than 12 in. (300 mm) and the laps shall be securely weighted with earth, or any other means satisfactory to the Engineer, to provide an air tight cover. For surface and base course concrete, the polyethylene sheets shall be not less than 100 ft (30 m) in length nor longer than can be conveniently handled, and shall be of such width that, when in place, they will cover the full width of the surface, including the edges, except that separate strips may be used to cover the edges. Any tears or holes in the sheeting shall be repaired. When sheets are no longer serviceable as a single unit, the Contractor may select from such sheets and reuse those which will serve for further applications, provided two sheets are used as a single unit; however, the double sheet units will be rejected when the Engineer deems that they no longer provide an air tight cover.

(3) Wetted Burlap Method. The surface of the concrete shall be covered with wetted burlap blankets as soon as the concrete has hardened sufficiently to prevent marring the surface. The blankets shall overlap 6 in. (150 mm). At least two layers of wetted burlap shall be placed on the finished surface. The burlap shall be kept saturated by means of a mechanically operated sprinkling system. In place of the sprinkling system, at the Contractor's option, two layers of burlap covered with impermeable covering shall be used. The burlap shall be kept saturated with water. Plastic coated burlap may be substituted for one layer of burlap and impermeable covering.

The blankets shall be placed so that they are in contact with the edges of the concrete, and that portion of the material in contact with the edges shall be kept saturated with water.

- (4) Membrane Curing Method. Membrane curing will not be permitted where a protective coat, concrete sealer, or waterproofing is to be applied, or at areas where rubbing or a normal finish is required, or at construction joints other than those necessary in pavement or base course. Concrete at these locations shall be cured by another method specified in Article 1020.13(a).

After all finishing work to the concrete surface has been completed, it shall be sealed with membrane curing compound of the type specified within ten minutes. The seal shall be maintained for the specified curing period. The edges of the concrete shall, likewise, be sealed within ten minutes after the forms are removed. Two separate applications, applied at least one minute apart, each at the rate of not less than 1 gal/250 sq ft (0.16 L/sq m) will be required upon the surfaces and edges of the concrete. These applications shall be made with the mechanical equipment specified. Type III compound shall be agitated immediately before and during the application.

At locations where the coating is discontinuous or where pin holes show or where the coating is damaged due to any cause and on areas adjacent to sawed joints, immediately after sawing is completed, an additional coating of membrane curing compound shall be applied at the above specified rate. The equipment used may be of the same type as that used for coating variable widths of pavement. Before the additional coating is applied adjacent to sawed joints, the cut faces of the joint shall be protected by inserting a suitable flexible material in the joint, or placing an adhesive width of impermeable material over the joint, or by placing the permanent sealing compound in the joint. Material, other than the permanent sealing compound, used to protect cut faces of the joint, shall remain in place for the duration of the curing period. In lieu of applying the additional coating, the area of the sawed joint may be cured according to any other method permitted.

When rain occurs before an application of membrane curing compound has dried, and the coating is damaged, the Engineer may require another application be made in the same manner and at the same rate as the original coat. The Engineer may order curing by another method specified, if unsatisfactory results are obtained with membrane curing compound.

- (5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry or damp cotton mats. The cotton mats shall be placed in a manner which will not mar the concrete surface. A texture resulting from the cotton mat material is acceptable. The cotton mats shall then be wetted immediately and thoroughly soaked with a gentle spray of water. For bridge decks, a foot bridge shall be used to place and wet the cotton mats.

The cotton mats shall be maintained in a wetted condition until the concrete has hardened sufficiently to place soaker hoses without marring the concrete surface. The soaker hoses shall be placed on top of the cotton mats at a maximum 4 ft (1.2 m) spacing. The cotton mats shall be kept wet with a continuous supply of water for the remainder of the curing period. Other continuous wetting systems may be used if approved by the Engineer.

After placement of the soaker hoses, the cotton mats shall be covered with white polyethylene sheeting or burlap-polyethylene blankets.

For construction items other than bridge decks, soaker hoses or a continuous wetting system will not be required if the alternative method keeps the cotton mats wet. Periodic wetting of the cotton mats is acceptable.

For areas inaccessible to the cotton mats on bridge decks, curing shall be according to Article 1020.13(a)(3).

- (b) Removing and Replacing Curing Covering. When curing methods specified above in Article 1020.13(a), (1), (2), or (3) are used for concrete pavement, the curing covering for each day's paving shall be removed to permit testing of the pavement surface with a profilograph or straightedge, as directed by the Engineer.

Immediately after testing, the surface of the pavement shall be wetted thoroughly and the curing coverings replaced. The top surface and the edges of the concrete shall not be left unprotected for a period of more than 1/2 hour.

- (c) Protection of Concrete, Other Than Structures, From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low of 32 °F (0 °C), or lower, or if the actual temperature drops to 32 °F (0 °C), or lower, concrete less than 72 hours old shall be provided at least the following protection.

Minimum Temperature	Protection
25 – 32 °F (-4 – 0 °C)	Two layers of polyethylene sheeting, one layer of polyethylene and one layer of burlap, or two layers of waterproof paper.
Below 25 °F (-4 °C)	6 in. (150 mm) of straw covered with one layer of polyethylene sheeting or waterproof paper.

These protective covers shall remain in place until the concrete is at least 96 hours old. When straw is required on pavement cured with membrane curing compound, the compound shall be covered with a layer of burlap, polyethylene sheeting or waterproof paper before the straw is applied.

After September 15, there shall be available to the work within four hours, sufficient clean, dry straw to cover at least two days production. Additional straw shall be provided as needed to afford the protection required. Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced.

- (d) Protection of Concrete Structures From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low below 45 °F (7 °C), or if the actual temperature drops below 45 °F (7 °C), concrete less than 72 hours old shall be provided protection. Concrete shall also be provided protection when placed during the winter period of December 1 through March 15. Concrete shall not be placed until the materials, facilities, and equipment for protection are approved by the Engineer.

When directed by the Engineer, the Contractor may be required to place concrete during the winter period. When winter construction is specified, the Contractor shall proceed with the construction, including excavation, pile driving, concrete, steel erection, and all appurtenant work required for the complete construction of the item, except at times when weather conditions make such operations impracticable.

Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced.

- (1) Protection Method I. The concrete shall be completely covered with insulating material such as fiberglass, rock wool, or other approved commercial insulating material having the minimum thermal resistance R, as defined in ASTM C 168, for the corresponding minimum dimension of the concrete unit being protected as shown in the following table.

Minimum Pour Dimension		Thermal Resistance R
in.	(mm)	
6 or less	(150 or less)	R=16
> 6 to 12	(> 150 to 300)	R=10
> 12 to 18	(> 300 to 450)	R=6
> 18	(> 450)	R=4

The insulating material manufacturer shall clearly mark the insulating material with the thermal resistance R value.

The insulating material shall be completely enclosed on sides and edges with an approved waterproof liner and shall be maintained in a serviceable condition. Any tears in the liner shall be repaired in a manner approved by the Engineer. The Contractor shall provide means for checking the temperature of the surface of the concrete during the protection period.

On formed surfaces, the insulating material shall be attached to the outside of the forms with wood cleats or other suitable means to prevent any circulation of air under the insulation and shall be in place before the concrete is placed. The blanket insulation shall be applied tightly against the forms. The edges and ends shall be attached so as to exclude air and moisture. If the blankets are provided with nailing flanges, the flanges shall be attached to the studs with cleats. Where tie rods or reinforcement bars protrude, the areas adjacent to the rods or bars shall be adequately protected in a manner satisfactory to the Engineer. Where practicable, the insulation shall overlap any previously placed concrete by at least 1 ft (300 mm). Insulation on the underside of floors on steel members shall cover the top flanges of supporting members. On horizontal surfaces, the insulating material shall be placed as soon as the concrete has set, so that the surface will not be marred and shall be covered with canvas or other waterproof covering. The insulating material shall remain in place for a period of seven days after the concrete is placed.

The Contractor may remove the forms, providing the temperature is 35 °F (2 °C) and rising and the Contractor is able to wrap the particular section within two hours from the time of the start of the form removal. The insulation shall remain in place for the remainder of the seven days curing period.

- (2) Protection Method II. The concrete shall be enclosed in adequate housing and the air surrounding the concrete kept at a temperature of not less than 50 °F (10 °C) nor more than 80 °F (27 °C) for a period of seven days after the concrete is placed. The Contractor shall provide means for checking the temperature of the surface of the concrete or air temperature within the housing during the protection period. All exposed surfaces within the housing shall be cured according to the Index Table.

The Contractor shall provide adequate fire protection where heating is in progress and such protection shall be accessible at all times. The Contractor shall maintain labor to keep the heating equipment in continuous operation.

At the close of the heating period, the temperature shall be decreased to the approximate temperature of the outside air at a rate not to exceed 15 °F (8 °C) per 12 hour period, after which the housing maybe removed. The surface of the concrete shall be permitted to dry during the cooling period.

- (3) Protection Method III. As soon as the surface is sufficiently set to prevent marring, the concrete shall be covered with 12 in. (300 mm) of loose, dry straw followed by a layer of impermeable covering. The edges of the covering shall be sealed to prevent circulation of air and prevent the cover from flapping or blowing. The protection shall remain in place until the concrete is seven days old. If construction operations require removal, the protection removed shall be replaced immediately after completion or suspension of such operations.

1020.14 Temperature Control for Placement. Temperature control for concrete placement shall be according to the following.

- (a) Concrete other than Structures. Concrete may be placed when the air temperature is above 35 °F (2 °C) and rising, and concrete placement shall stop when the falling temperature reaches 40 °F (4 °C) or below, unless otherwise approved by the Engineer.

The temperature of concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C). If concrete is pumped, the temperature of the concrete at point of placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C). A maximum concrete temperature shall not apply to Class PP concrete.

- (b) Concrete in Structures. Concrete may be placed when the air temperature is above 40 °F (4 °C) and rising, and concrete placement shall stop when the falling temperature reaches 45 °F (7 °C) or below, unless otherwise approved by the Engineer.

The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C). If concrete is pumped, the temperature of the concrete at point of placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

When insulated forms are used according to Article 1020.13(d)(1), the maximum temperature of the concrete mixture immediately before placement shall be 80 °F (25 °C).

When concrete is placed in contact with previously placed concrete, the temperature of the freshly mixed concrete may be increased to 80 °F (25 °C) by the Contractor to offset anticipated heat loss.

- (c) All Classes of Concrete. Aggregates and water shall be heated or cooled uniformly and as necessary to produce concrete within the specified temperature limits. No frozen aggregates shall be used in the concrete.
- (d) Temperature. The concrete temperature shall be determined according to Illinois Modified AASHTO T 309.

1020.15 Heat of Hydration Control for Concrete Structures. The Contractor shall control the heat of hydration for concrete structures when the least dimension for a drilled shaft, foundation, footing, substructure, or superstructure concrete pour exceeds 5.0 ft (1.5 m). The work shall be according to the following.

- (a) Temperature Restrictions. The maximum temperature of the concrete after placement shall not exceed 150 °F (66 °C). The maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface shall not exceed 35 °F (19 °C). The Contractor shall perform temperature monitoring to ensure compliance with the temperature restrictions.
- (b) Thermal Control Plan. The Contractor shall provide a thermal control plan a minimum of 28 calendar days prior to concrete placement for review by the Engineer. Acceptance of the thermal control plan by the Engineer shall not preclude the Contractor from specification compliance, and from preventing cracks in the concrete. At a minimum, the thermal control plan shall provide detailed information on the following requested items and shall comply with the specific specifications indicated for each item.
 - (1) Concrete mix design(s) to be used. Grout mix design if post-cooling with embedded pipe.

The mix design requirements in Articles 1020.04 and 1020.05 shall be revised to include the following additional requirements to control the heat of hydration.

- a. The concrete mixture should be uniformly graded and preference for larger size aggregate should be used in the mix design. Article 1004.02(d)(2) shall apply and information in the “Portland Cement Concrete Level III Technician Course – Manual of Instructions for Design of Concrete Mixtures” may be used to develop the uniformly graded mixture.
- b. The following shall apply to all concrete except Class DS concrete or when self-consolidating concrete is desired. For central-mixed concrete, the Contractor shall have the option to develop a mixture with a minimum of 520 lbs/cu yd (309 kg/cu m) of cement and finely divided minerals summed together. For truck-mixed or shrink-mixed concrete, the Contractor shall have the option to develop a mixture with a minimum of 550 lbs/cu yd (326 kg/cu m) of cement and finely divided minerals summed together. A water-reducing or high range water-reducing admixture shall be used in the central mixed, truck-mixed or shrink-mixed concrete mixture. For any mixture to be placed underwater, the minimum cement and finely divided minerals shall be 550 lbs/cu yd (326 kg/cu m) for central-mixed concrete, and 580 lbs/cu yd (344 kg/cu m) for truck-mixed or shrink-mixed concrete.

For Class DS concrete, CA 11 may be used. If CA 11 is used, the Contractor shall have the option to develop a mixture with a minimum cement and finely divided minerals of 605 lbs/cu yd (360 kg/cu m) summed together. If CA 11 is used and either Class DS concrete is placed underwater or a self-consolidating concrete mixture is desired, the Contractor shall have the option to develop a mixture with a minimum cement and finely divided minerals of 635 lbs/cu yd (378 kg/cu m) summed together.

- c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161 Procedure A or B, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Freeze/thaw testing will not be required for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer.
- d. The maximum cement replacement with fly ash shall be 40.0 percent. The maximum cement replacement with ground granulated blast-furnace slag shall be 65.0 percent. When cement replacement with ground granulated blast-furnace slag exceeds 35.0 percent, only Grade 100 shall be used.
- e. The mixture may contain a maximum of two finely divided minerals. The finely divided mineral in portland-pozzolan cement or portland blast-furnace slag cement shall count toward the total number of finely divided minerals allowed. The finely divided minerals shall constitute a maximum of 65.0 percent of the total cement plus finely divided minerals. The fly ash portion shall not exceed 40.0 percent. The ground granulated blast-furnace slag portion shall not exceed 65.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent.
- f. The time to obtain the specified strength may be increased to a maximum 56 days, provided the curing period specified in Article 1020.13 is increased to a minimum of 14 days.

The minimum grout strength for filling embedded pipe shall be as specified for the concrete, and testing shall be according to AASHTO T 106.

- (2) The selected mathematical method for evaluating heat of hydration thermal effects, which shall include the calculated adiabatic temperature rise, calculated maximum concrete temperature, and calculated maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface. The time when the maximum concrete temperature and maximum temperature differential will occur is required.

Acceptable mathematical methods include ACI 207.2R "Report on Thermal and Volume Change Effects on Cracking of Mass Concrete" as well as other proprietary methods. The Contractor shall perform heat of hydration testing on the cement and finely divided minerals to be used in the concrete mixture. The test shall be according to ASTM C 186 or other applicable test methods, and the result for heat shall be used in the equation to calculate adiabatic temperature rise. Other required test parameters for the mathematical model may be assumed if appropriate.

The Contractor has the option to propose a higher maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface, but the proposed value shall not exceed 50 °F (28 °C). In addition, based on strength gain of the concrete, multiple maximum temperature differentials at different times may be proposed. The proposed value shall be justified through a mathematical method.

- (3) Proposed maximum concrete temperature or temperature range prior to placement.

Article 1020.14 shall apply except a minimum 40 °F (4 °C) concrete temperature will be permitted.

- (4) Pre-cooling, post-cooling, and surface insulation methods that will be used to ensure the concrete will comply with the specified maximum temperature and specified or proposed temperature differential. For reinforcement that extends beyond the limits of the pour, the Contractor shall indicate if the reinforcement is required to be covered with insulation.

Refer to ACI 207.4R "Cooling and Insulating Systems for Mass Concrete" for acceptable methods that will be permitted. If embedded pipe is used for post-cooling, the material shall be polyvinyl chloride or polyethylene. The embedded pipe system shall be properly supported, and the Contractor shall subsequently inspect glued joints to ensure they are able to withstand free falling concrete. The embedded pipe system shall be leak tested after inspection of the glued joints, and prior to the concrete placement. The leak test shall be performed at maximum service pressure or higher for a minimum of 15 minutes. All leaks shall be repaired. The embedded pipe cooling water may be from natural sources such as streams and rivers, but shall be filtered to prevent system stoppages. When the embedded pipe is no longer needed, the surface connections to the pipe shall be removed to a depth of 4 in. (100 mm) below the surface of the concrete. The remaining pipe shall be completely filled with grout. The 4 in. (100 mm) deep concrete hole shall be filled with nonshrink grout. Form and insulation removal shall be done in a manner to prevent cracking and ensure the maximum temperature differential is maintained. Insulation shall be in good condition as determined by the Engineer and properly attached.

- (5) Dimensions of each concrete pour, location of construction joints, placement operations, pour pattern, lift heights, and time delays between lifts.

Refer to ACI 207.1R "Guide to Mass Concrete" for acceptable placement operations that will be permitted.

- (6) Type of temperature monitoring system, the number of temperature sensors, and location of sensors.

A minimum of two independent temperature monitoring systems and corresponding sensors shall be used.

The temperature monitoring system shall have a minimum temperature range of 32 °F (0 °C) to 212 °F (100 °C), an accuracy of ± 2 °F (± 1 °C), and be able to automatically record temperatures without external power. Temperature monitoring shall begin once the sensor is encased in concrete, and with a maximum interval of one hour. Temperature monitoring may be discontinued after the maximum concrete temperature has been reached, post-cooling is no longer required, and the maximum temperature differential between the internal concrete core and the ambient air temperature does not exceed 35 °F (19 °C). The Contractor has the option to select a higher maximum temperature differential, but the proposed value shall not exceed 50 °F (28 °C). The proposed value shall be justified through a mathematical method.

At a minimum, a temperature sensor shall be located at the theoretical hottest portion of the concrete, normally the geometric center, and at the exterior face that will provide the maximum temperature differential. At the exterior face, the sensor shall be located 2 to 3 in. (50 to 75 mm) from the surface of the concrete. Sensors shall also be located a minimum of 1 in. (25 mm) away from reinforcement, and equidistant between cooling pipes if either applies. A sensor will also be required to measure ambient air temperature. The entrant/exit cooling water temperature for embedded pipe shall also be monitored.

Temperature monitoring results shall be provided to the Engineer a minimum of once each day and whenever requested by the Engineer. The report may be electronic or hard copy. The report shall indicate the location of each sensor, the temperature recorded, and the time recorded. The report shall be for all sensors and shall include ambient air temperature and entrant/exit cooling water temperatures. The temperature data in the report may be provided in tabular or graphical format, and the report shall indicate any corrective actions during the monitoring period. At the completion of the monitoring period, the Contractor shall provide the Engineer a final report that includes all temperature data and corrective actions.

- (7) Indicate contingency operations to be used if the maximum temperature or temperature differential of the concrete is reached after placement.

- (c) Temperature Restriction Violations. If the maximum temperature of the concrete after placement exceeds 150 °F (66 °C), but is equal to or less than 158 °F (70 °C), the concrete will be accepted if no cracking or other unacceptable defects are identified. If cracking or unacceptable defects are identified, Article 105.03 shall apply. If the concrete temperature exceeds 158 °F (70 °C), Article 105.03 shall apply.

If a temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface exceeds the specified or proposed maximum value allowed, the concrete will be accepted if no cracking or other unacceptable defects are identified. If unacceptable defects are identified, Article 105.03 shall apply.

When the maximum 150 °F (66 °C) concrete temperature or the maximum allowed temperature differential is violated, the Contractor shall implement corrective action prior to the next pour. In addition, the Engineer reserves the right to request a new thermal control plan for acceptance before the Contractor is allowed to pour again.

- (d) Inspection and Repair of Cracks. The Engineer will inspect the concrete for cracks after the temperature monitoring is discontinued, and the Contractor shall provide access for the Engineer to do the inspection. A crack may require repair by the Contractor as determined by the Engineer. The Contractor shall be responsible for the repair of all cracks. Protective coat or a concrete sealer shall be applied to a crack less than 0.007 in. (0.18 mm) in width. A crack that is 0.007 in. (0.18 mm) or greater shall be pressure injected with epoxy according to Section 590.

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012

Revised: January 1, 2013

Add the following to Section 1020 of the Standard Specifications:

“1020.16 Quality Control/Quality Assurance of Concrete Mixtures. This Article specifies the quality control responsibilities of the Contractor for concrete mixtures (except Class PC and PS concrete), cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Article 1020.16(g), Schedule D.

A Level I Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete testing.

A Level II Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete proportioning.

A Level III Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete mix design.

A Concrete Tester shall be defined as an individual who has successfully completed the Department’s training to assist with concrete testing and is monitored on a daily basis.

Aggregate Technician shall be defined as an individual who has successfully completed the Department’s training for gradation testing involving aggregate production and mixtures.

Mixture Aggregate Technician shall be defined as an individual who has successfully completed the Department’s training for gradation testing involving mixtures.

Gradation Technician shall be defined as an individual who has successfully completed the Department’s training to assist with gradation testing and is monitored on a daily basis.

- (a) Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Private Laboratory Requirements for Construction Materials Testing or Mix Design". Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" form.

Test equipment used to determine compressive or flexural strength shall be calibrated each 12 month period by an independent agency, using calibration equipment traceable to the National Institute of Standards and Technology (NIST). The Contractor shall have the calibration documentation available at the test equipment location.

The Engineer will have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

- (b) Quality Control Plan. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material incorporated in the project. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt.

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

- (c) Quality Control by Contractor. The Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits, or to resolve test result differences with the Engineer. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03.

- (1) Personnel Requirements. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for quality control. The jobsite and plant personnel shall be able to contact the QC Manager by cellular phone, two-way radio or other methods approved by the Engineer.

The QC Manager shall visit the jobsite a minimum of once a week. A visit shall be performed the day of a bridge deck pour, the day a non-routine mixture is placed as determined by the Engineer, or the day a plant is anticipated to produce more than 1000 cu yd (765 cu m). Any of the three required visits may be used to meet the once per week minimum requirement.

The Contractor shall provide personnel to perform the required inspections, sampling, testing and documentation in a timely manner. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level I PCC Technician shall be provided at the jobsite during mixture production and placement, and may supervise concurrent pours on the project. For concurrent pours, a minimum of one Concrete Tester shall be required at each pour location. If the Level I PCC Technician is at one of the pour locations, a Concrete Tester is still required at the same location. Each Concrete Tester shall be able to contact the Level I PCC Technician by cellular phone, two-way radio or other methods approved by the Engineer. A single Level I PCC Technician shall not supervise concurrent pours for multiple contracts.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

For a mixture which is produced and placed with a mobile portland cement concrete plant as defined in Article 1103.04, a Level II PCC Technician shall be provided. The Level II PCC Technician shall be present at all times during mixture production and placement. However, the Level II PCC Technician may request to be available if operations are satisfactory. Approval shall be obtained from the Engineer, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

- A Concrete Tester, Mixture Aggregate Technician, and Aggregate Technician may provide assistance with sampling and testing. A Gradation Technician may provide assistance with testing. A Concrete Tester shall be supervised by a Level I or Level II PCC Technician. A Gradation Technician shall be supervised by a Level II PCC Technician, Mixture Aggregate Technician, or Aggregate Technician.
- (2) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Article 1020.16(g) Schedule A.
 - (3) Required Field Tests. Sampling and testing shall be performed at the jobsite to control the production of a mixture, and to comply with specifications for placement. For standard curing, after initial curing, and for strength testing; the location shall be approved by the Engineer. The required minimum Contractor jobsite sampling and testing is indicated in Article 1020.16(g), Schedule B.
- (d) Quality Assurance by Engineer. The Engineer will perform quality assurance tests on independent samples and split samples. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing is indicated in Article 1020.16(g), Schedule C.
- (1) Strength Testing. For strength testing, Article 1020.09 shall apply, except the Contractor and Engineer strength specimens may be placed in the same field curing box for initial curing and may be cured in the same water storage tank for final curing.
 - (2) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will be considered reasonable if within the following limits:

Test Parameter	Acceptable Limits of Precision
Slump	0.75 in. (20 mm)
Air Content	0.9%
Compressive Strength	900 psi (6200 kPa)
Flexural Strength	90 psi (620 kPa)
Slump Flow (Self-Consolidating Concrete (SCC))	1.5 in. (40 mm)
Visual Stability Index (SCC)	Not Applicable
J-Ring (SCC)	1.5 in. (40 mm)
L-Box (SCC)	10 %
Hardened Visual Stability Index (SCC)	Not Applicable
Dynamic Segregation Index (SCC)	1.0 %
Flow (Controlled Low-Strength Material (CLSM))	1.5 in. (40 mm)
Strength (Controlled Low-Strength Material (CLSM))	40 psi (275 kPa)
Aggregate Gradation	See "Guideline for Sample Comparison" in Appendix "A" of the Manual of Test Procedures for Materials.

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

(3) Test Results and Specification Limits.

- a. Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits, and the other party is within specification limits; immediate retests on a split sample shall be performed for slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength or hardened visual stability index test result is a failure, and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:
 1. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.
 2. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.
 3. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, and jobsite flow (CLSM); if the failing split sample test result is not resolved according to 1., 2., or 3., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work according to Article 105.03. If the mixture has already been placed, or if a failing strength or hardened visual stability index test result is not resolved according to 1., 2., or 3., the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to items 1., 2., and 3.

- b. Independent Sample Testing. For aggregate gradation, jobsite slump, jobsite air content jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, jobsite flow (CLSM); if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits, and the mixture has not been placed, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work according to Article 105.03. If the mixture has already been placed or the Engineer obtains a failing strength or hardened visual stability index test result, the material will be considered unacceptable.
- (e) Acceptance by the Engineer. Final acceptance will be based on the Standard Specifications and the following:
- (1) The Contractor's compliance with all contract documents for quality control.
 - (2) Validation of Contractor quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.
 - (3) Comparison of the Engineer's quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (1), (2), or (3).

(f) Documentation.

- (1) Records. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, the subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form MI 504M, form BMPR MI654, and form BMPR MI655 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed form MI 504M, form BMPR MI654, and form BMPR MI655 are required to authorize payment by the Engineer, for applicable pay items.

- (2) Delivery Truck Ticket. The following information shall be recorded on each delivery ticket or in a bound hardback field book: initial revolution counter reading (final reading optional) at the jobsite, if the mixture is truck-mixed; time discharged at the jobsite; total amount of each admixture added at the jobsite; and total amount of water added at the jobsite.

- (g) Basis of Payment and Schedules. Quality Control/Quality Assurance of portland cement concrete mixtures will not be paid for separately, but shall be considered as included in the cost of the various concrete contract items.

SCHEDULE A

CONTRACTOR PLANT SAMPLING AND TESTING			
Item	Test	Frequency	IL Modified AASHTO or Department Test Method ^{1/}
Aggregates (Arriving at Plant)	Gradation ^{2/}	As needed to check source for each gradation number	2, 11, 27, and 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Gradation ^{2/}	2,500 cu yd (1,900 cu m) for each gradation number ^{3/}	2, 11, 27, and 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Moisture ^{4/} : Fine Aggregate	Once per week for moisture sensor, otherwise daily for each gradation number	Flask, Dunagan, Pycnometer Jar, or 255
	Moisture ^{4/} : Coarse Aggregate	As needed to control production for each gradation number	Dunagan, Pycnometer Jar, or 255
Mixture ^{5/}	Slump Air Content Unit Weight / Yield Slump Flow (SCC) Visual Stability Index (SCC) J-Ring (SCC) ^{6/} L-Box (SCC) ^{6/} Temperature	As needed to control production	T 141 and T 119 T 141 and T 152 or T 196 T 141 and T 121 SCC-1 and SCC-2 SCC-1 and SCC-2 SCC-1 and SCC-3 SCC-1 and SCC-4 T 141 and T 309
Mixture (CLSM) ^{7/}	Flow Air Content Temperature	As needed to control production	Illinois Test Procedure 307

1/ Refer to the Department's "Manual of Test Procedures for Materials".

2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.

3/ One per week (Sunday through Saturday) minimum unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests. The Department's "Water/Cement Ratio Worksheet" form shall be completed when applicable.

5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO T 141, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318.

The Contractor may also perform other available self-consolidating concrete (SCC) tests at the plant to control mixture production.

6/ The Contractor shall select the J-Ring or L-Box test for plant sampling and testing.

7/ The Contractor may also perform strength testing according to Illinois Test Procedure 307.

SCHEDULE B

CONTRACTOR JOBSITE SAMPLING & TESTING ^{1/}			
Item	Measured Property	Random Sample Testing Frequency per Mix Design and per Plant ^{2/}	IL Modified AASHTO Test Method
Pavement, Shoulder, Base Course, Base Course Widening, Driveway Pavement, Railroad Crossing, Cement Aggregate Mixture II	Slump ^{3/ 4/}	1 per 500 cu yd (400 cu m) or minimum 1/day	T 141 and T 119
	Air Content ^{3/ 5/ 6/}	1 per 100 cu yd (80 cu m) or minimum 1/day	T 141 and T 152 or T 196
	Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/}	1 per 1250 cu yd (1000 cu m) or minimum 1/day	T 141, T 22 and T 23 or T 141, T 177 and T 23
Bridge Slab ^{9/} , Bridge Deck ^{9/} , Bridge Deck Overlay ^{9/} , Superstructure ^{9/} , Substructure, Culvert, Miscellaneous Drainage Structures, Retaining Wall, Building Wall, Drilled Shaft Pile & Encasement Footing, Foundation, Pavement Patching, Structural Repairs	Slump ^{3/ 4/}	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 and T 119
	Air Content ^{3/ 5/ 6/}	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 and T 152 or T 196
	Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/}	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141, T 22 and T 23 or T 141, T 177 and T 23
Seal Coat	Slump ^{3/}	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141 and T 119
	Air Content ^{3/ 5/ 6/}	1 per 250 cu yd (200 cu m) or minimum 1/day when air is entrained	T 141 and T 152 or T 196
	Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/}	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141, T 22 and T 23 or T 141, T 177 and T 23

CONTRACTOR JOBSITE SAMPLING & TESTING ^{1/}			
Curb, Gutter, Median, Barrier, Sidewalk, Slope Wall, Paved Ditch, Fabric Formed Concrete Revetment Mat ^{10/} , Miscellaneous Items, Incidental Items	Slump ^{3/ 4/}	1 per 100 cu yd (80 cu m) or minimum 1/day	T 141 and T 119
	Air Content ^{3/ 5/ 6/}	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 and T 152 or T 196
	Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/}	1 per 400 cu yd (300 cu m) or minimum 1/day	T 141, T 22 and T 23 or T 141, T 177 and T 23
The Item will use a Self-Consolidating Concrete Mixture	Slump Flow ^{3/} VSI ^{3/} J-Ring ^{3/ 11/} L-Box ^{3/ 11/}	Perform at same frequency that is specified for the Item's slump	SCC-1 & SCC-2 SCC-1 & SCC-2 SCC-1 & SCC-3 SCC-1 & SCC-4
The Item will use a Self-Consolidating Concrete Mixture	HVSI ^{12/}	Minimum 1/day at start of production for that day	SCC-1 and SCC-6
The Item will use a Self-Consolidating Concrete Mixture	Dynamic Segregation Index (DSI)	Minimum 1/week at start of production for that week	SCC-1 and SCC-8 (Option C)
The Item will use a Self-Consolidating Concrete Mixture	Air Content ^{3/ 5/ 6/}	Perform at same frequency that is specified for the Item's air content	SCC-1 and T 152 or T 196
The Item will use a Self-Consolidating Concrete Mixture	Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/}	Perform at same frequency that is specified for the Item's strength	SCC-1, T 22 and T 23 or SCC-1, T 177 and T 23
All	Temperature ^{3/}	As needed to control production	T 141 and T 309
Controlled Low-Strength Material (CLSM)	Flow, Air Content, Compressive Strength (28-day) ^{13/} , and Temperature	First truck load delivered and as needed to control production thereafter	Illinois Test Procedure 307

1/ Sampling and testing of small quantities of curb, gutter, median, barrier, sidewalk, slope wall, paved ditch, miscellaneous items, and incidental items may be waived by the Engineer if requested by the Contractor. However, quality control personnel are still required according to Article 1020.16(c)(1) The Contractor shall also provide recent evidence that similar material has been found to be satisfactory under normal sampling and testing procedures. The total quantity that may be waived for testing shall not exceed 100 cu yd (76 cu m) per contract.

If the Contractor's or Engineer's test result for any jobsite mixture test is not within the specification limits, all subsequent truck loads delivered shall be tested by the Contractor until the problem is corrected.

- 2/ If one mix design is being used for several construction items during a day's production, one testing frequency may be selected to include all items. The construction items shall have the same slump, air content, and water/cement ratio specifications. For self-consolidating concrete, the construction items shall have the same slump flow, visual stability index, J-Ring, L-Box, air content, and water/cement ratio specifications. The frequency selected shall equal or exceed the testing required for the construction item.

One sufficiently sized sample shall be taken to perform the required test(s). Random numbers shall be determined according to the Department's "Method for Obtaining Random Samples for Concrete". The Engineer will provide random sample locations.

- 3/ The temperature, slump, and air content tests shall be performed on the first truck load delivered, for each pour. For self consolidating concrete, the temperature, slump flow, visual stability index, J-Ring or L-Box, and air content tests shall be performed on the first truck load delivered, for each pour. Unless a random sample is required for the first truck load, testing the first truck load does not satisfy random sampling requirements.
- 4/ The slump random sample testing frequency shall be a minimum 1/day for a construction item which is slipformed.
- 5/ If a pump or conveyor is used for placement, a correction factor shall be established to allow for a loss of air content during transport. The first three truck loads delivered shall be tested, before and after transport by the pump or conveyor, to establish the correction factor. Once the correction is determined, it shall be re-checked after an additional 50 cu yd (40 cu m) is pumped, or an additional 100 cu yd (80 cu m) is conveyed. This shall continue throughout the pour. If the re-check indicates the correction factor has changed, a minimum of two truckloads is required to re-establish the correction factor. The correction factor shall also be re-established when significant changes in temperature, distance, pump or conveyor arrangement, and other factors have occurred. If the correction factor is >3.0 percent, the Contractor shall take corrective action to reduce the loss of air content during transport by the pump or conveyor. The Contractor shall record all air content test results, correction factors and corrected air contents. The corrected air content shall be reported on form BMPR MI654.
- 6/ If the Contractor's or Engineer's air content test result is within the specification limits, and 0.2 percent or closer to either limit, the next truck load delivered shall be tested by the Contractor. For example, if the specified air content range is 5.0 to 8.0 percent and the test result is 5.0, 5.1, 5.2, 7.8, 7.9 or 8.0 percent, the next truck shall be tested by the Contractor.
- 7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of at least two cylinder or two beam breaks for field tests.

- 8/ In addition to the strength test, a slump test, air content test, and temperature test shall be performed on the same sample. For self-consolidating concrete, a slump flow test, visual stability index test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample as the strength test. For mixtures pumped or conveyed, the Contractor shall sample according to Illinois Modified AASHTO T 141.
- 9/ The air content test will be required for each delivered truck load.
- 10/ For fabric formed concrete revetment mat, the slump test is not required and the flexural strength test is not applicable.
- 11/ The Contractor shall select the J-Ring or L-Box test for jobsite sampling and testing.
- 12/ In addition to the hardened visual stability index (HVSI) test, a slump flow test, visual stability index (VSI) test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample. The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.
- 13/ The test of record for strength shall be the day indicated in Article 1019.04. In addition to the strength test, a flow test, air content test, and temperature test shall be performed on the same sample. The strength test may be waived by the Engineer if future removal of the material is not a concern.

SCHEDULE C

ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING		
Location	Measured Property	Testing Frequency ^{1/}
Plant	Gradation of aggregates stored in stockpiles or bins, Slump and Air Content	As determined by the Engineer.
Jobsite	Slump, Air Content, Slump Flow, Visual Stability Index, J-Ring, L-Box, Hardened Visual Stability Index, Dynamic Segregation Index and Strength	As determined by the Engineer.
	Flow, Air Content, Strength (28-day), and Dynamic Cone Penetration for Controlled Low-Strength Material (CLSM)	As determined by the Engineer

ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING		
Location	Measured Property	Testing Frequency ^{1/}
Plant	Gradation of aggregates stored in stockpiles or bins ^{2/}	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.
	Slump and Air Content	As determined by the Engineer.
Jobsite	Slump ^{2/} , Air Content ^{2/ 3/} , Slump Flow ^{2/} , Visual Stability Index ^{2/} , J-Ring ^{2/} and L-box ^{2/}	At the beginning of the project, the first three tests performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.
	Hardened Visual Stability Index ^{2/}	As determined by the Engineer.
	Dynamic Segregation Index ^{2/}	As determined by the Engineer.
	Strength ^{2/}	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.
	Flow, Air Content, and Strength (28-day) for Controlled Low-Strength Material (CLSM)	As determined by the Engineer.

- 1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.
- 2/ The Engineer will witness and take immediate possession of or otherwise secure the Department's split sample obtained by the Contractor.
- 3/ Before transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant. After transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant.

SCHEDULE D

CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

- (a) Model Quality Control Plan for Concrete Production (*)
- (b) Qualifications and Duties of Concrete Quality Control Personnel (*)
- (c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (*)
- (d) Required Sampling and Testing Equipment for Concrete (*)
- (e) Method for Obtaining Random Samples for Concrete (*)
- (f) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09) (*)
- (g) Water/Cement Ratio Worksheet (BMPR PCCW01) (*)
- (h) Field/Lab Gradations (MI 504M) (*)
- (i) Concrete Air, Slump and Quantity (BMPR MI654) (*)
- (j) P.C. Concrete Strengths (BMPR MI655) (*)
- (k) Aggregate Technician Course or Mixture Aggregate Technician Course (*)
- (l) Portland Cement Concrete Tester Course (*)
- (m) Portland Cement Concrete Level I Technician Course - Manual of Instructions for Concrete Testing (*)
- (n) Portland Cement Concrete Level II Technician Course - Manual of Instructions for Concrete Proportioning (*)
- (o) Portland Cement Concrete Level III Technician Course - Manual of Instructions for Design of Concrete Mixtures (*)
- (p) Manual of Test Procedures for Materials

* Refer to Appendix C of the Manual of Test Procedures for Materials for more information.”

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012

Revise: January 1, 2013

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 the FRAP will be incorporated.

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 approved 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_{mm} . 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	± 0.4 % ^{1/}	± 0.5 %
G_{mm}	± 0.03	

1/ The tolerance for FRAP shall be ± 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 tables listed below for the given N design.

Level 1 - FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures ^{1/, 2/}	Level 1 - FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	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 20 percent.

Level 2 – FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures <i>1/, 2/</i>	Level 2 – FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified ^{3/} _{4/}
30	40	40	10
50	40	30	10
70	30	20	10
90	30	20	10
105	30	15	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 above detailed requirements.

FRAP/RAS mix designs exceeding the Level 1 FRAP/RAS Maximum ABR percentages shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T 324 (Hamburg Wheel) and shall meet the following requirements.

Asphalt Binder Grade	# Repetitions	Max. Rut Depth in. (mm)
PG76-XX	20,000	1/2 (12.5)
PG70-XX	15,000	1/2 (12.5)
PG64-XX	7,500	1/2 (12.5)
PG58-XX	5,000	1/2 (12.5)

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS designs shall be submitted for volumetric 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 2.500 shall be used for mix design purposes.

1031.08 HMA Production. Mixture production where the FRAP/RAS ABR percentage exceeds the Level 1 limits, shall be sampled within the first 500 tons (450 metric tons) on the first day of production with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture conformance is demonstrated prior to start of mix production for a State contract.

- (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.

When producing HMA containing RAS, a positive dust control system shall be utilized.

(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).
- f. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. 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.”

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

Revise Article 669.01 of the Standard Specifications to read:

“669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.”

Revise Article 669.08 of the Standard Specifications to read:

“669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use a detectable concentration which is equal to the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

- (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as “uncontaminated soil” according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.
- (c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.”

Revise Article 669.14 of the Standard Specifications to read:

“669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site investigation (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site investigation (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site investigation (PESA) site number) for non-special waste disposal.”

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

“The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.”

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.

General. 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 336+00 to Station 338+70 0 to 100 feet LT (Agricultural Field, PESA Site 1547V-16, between 540-600 US 51). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09.
- Station 338+70 to Station 341+30 0 to 100 feet LT (Agricultural Field, PESA Site 1547V-16, between 540-600 US 51). 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: Arsenic.
- Station 344+70 to Station 352+30 0 to 110 feet LT (Agricultural Field, PESA Site 1547V-16, between 540-600 US 51). 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: Arsenic.
- Station 344+70 to Station 346+30 0 to 110 feet RT (Agricultural Field with Oil Pump, PESA Site 1547V-18, between 540-576 US 51). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09.
- Station 360+55 to Station 364+00 0 to 170 feet RT (Agricultural Field with Oil Pumps, PESA Site 1457V-15, between 600-700 US 51). 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: Arsenic.

- Station 15+50 to Station 18+50 0 to 205 feet RT (Agricultural Field, PESA Site 1547V-16, between 540-600 US 51). 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: Arsenic.
- Station 16+50 to Station 18+20 0 to 500 feet LT (Agricultural Field with Oil Pumps, PESA Site 1547V-13, between 600-700 US 51). 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: Arsenic.
- Station 22+30 to Station 25+60 0 to 60 feet LT (Agricultural Field with Oil Pumps, PESA Site 1457V-15, between 600-700 US 51). 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: Arsenic.
- Station 373+00 to Station 378+00 0 to 150 feet RT (Agricultural Field with Oil Pumps, PESA Site 1457V-15, between 600-700 US 51). This material meets the criteria of Article 669.09(b) and shall be managed in accordance to Article 669.09.
- Station 456+60 to Station 460+00 0 to 150 feet LT (Residence and Farm Building, PESA Site 1457V-9,781 US 51). 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: Arsenic.
- Station 460+00 to Station 463+00 0 to 150 feet LT (Residence and Farm Building, PESA Site 1457V-9,781 US 51). This material meets the criteria of Article 669.09(b) and shall be managed in accordance to Article 669.09.
- Station 463+00 to Station 465+00 0 to 150 feet LT (Residence and Farm Building, PESA Site 1457V-9,781 US 51). 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: Arsenic.

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

“202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

SEEDING (BDE)

Effective: November 1, 2012

Revise the following seeding mixture shown in Table 1 of Article 250.07 of the Standard Specifications to read.

"TABLE 1 - SEEDING MIXTURES		
Class - Type	Seeds	lb/acre (kg/hectare)
3 Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) 5/	5 (5)
	Perennial Ryegrass	20 (20)
	Alsike Clover 2/	5 (5)
	Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/	2 (2)
	Andropogon Scoparius (Little Bluestem) 5/	12 (12)
	Bouteloua Curtipendula (Side-Oats Grama) 5/	10 (10)
	Fult Salt Grass 1/	30 (35)
	Oats, Spring	50 (55)
	Slender Wheat Grass 5/	15 (15)
	Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)"

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

Revised: April 1, 2011

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting according to Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

TEMPORARY EROSION AND SEDIMENT CONTROL (BDE)

Effective: January 1, 2012

Revise the first paragraph of Article 280.04(f) of the Standard Specifications to read:

“(f) Temporary Erosion Control Seeding. This system consists of seeding all erodible/bare areas to minimize the amount of exposed surface area. Seed bed preparation will not be required if the surface of the soil is uniformly smooth and in a loose condition. Light disking shall be done if the soil is hard packed or caked. Erosion rills greater than 1 in. (25 mm) in depth shall be filled and area blended with the surrounding soil. Fertilizer nutrients will not be required.”

Delete the last sentence of Article 280.08(e) of the Standard Specifications.

TEMPORARY RAISED PAVEMENT MARKER (BDE)

Effective: January 1, 2009

Description. This work shall consist of furnishing and installing temporary raised pavement markers.

Materials. The marker body shall be approximately 0.06 in. (1.5 mm) thick polyurethane formed in an “L” shape. The base of the marker shall be approximately 4 in. (100 mm) wide by 1.125 in. (28 mm) long with a solid 0.125 in. (3.2 mm) thick butyl rubber adhesive pad protected with a release paper. The vertical portion of the marker shall be approximately 4 in. (100 mm) wide by 2 in. (50 mm) high.

A cube-corner micro-prism reflective tape material shall be placed horizontally along both sides at the top of the vertical section of the marker. The reflective material shall be recessed in an “I-Beam” design to protect the reflective material from aggregate. A clear flexible polyvinyl chloride plastic cover is to be attached to the vertical section of the marker with a heavy duty staple to cover the reflective material during surfacing operations. The flexible raised pavement marker shall be readily visible at night when viewed with high beam automobile headlamps from a distance of at least 300 ft (90 m).

Construction Requirements

Application. The temporary markers shall be installed at the centerline or lane line(s) prior to application of any surface treatment which would cover the existing pavement markings. Temporary markers shall also be applied at edge lines when specified on the plans.

For temporary replacement of skip dash markings, an abbreviated pattern of two markers spaced 4 ft (1.2 m) apart with a maximum spacing of 40 ft (12 m) between sets of markers shall be used. For temporary replacement of solid lines, one marker shall be placed every 5 ft (1.5 m). The marker color and location shall match the existing line color and location.

Basis of Payment. This work will be paid for at the contract unit price per each for TEMPORARY RAISED PAVEMENT MARKER.

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.”

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2011

Revise the third sentence of the third paragraph of Article 105.03(b) of the Standard Specifications to read:

“The daily monetary deduction will be \$2,500.”

UTILITY COORDINATION AND CONFLICTS (BDE)

Effective: April 1, 2011

Revised: January 1, 2012

Revise Article 105.07 of the Standard Specifications to read:

“105.07 Cooperation with Utilities. The Department reserves the right at any time to allow work by utilities on or near the work covered by the contract. The Contractor shall conduct his/her work so as not to interfere with or hinder the progress or completion of the work being performed by utilities. The Contractor shall also arrange the work and shall place and dispose of the materials being used so as not to interfere with the operations of utility work in the area.

The Contractor shall cooperate with the owners of utilities in their removal and rearrangement operations so work may progress in a reasonable manner, duplication or rearrangement of work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

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

Revise the first sentence of the last paragraph of Article 107.19 of the Standard Specifications to read:

“When the Contractor encounters unexpected regulated substances due to the presence of utilities in unanticipated locations, the provisions of Article 107.40 shall apply; otherwise, if the Engineer does not direct a resumption of operations, the provisions of Article 108.07 shall apply.”

Revise Article 107.31 of the Standard Specification to read:

“107.31 Reserved.”

Add the following four Articles to Section 107 of the Standard Specifications:

“107.37 Locations of Utilities within the Project Limits. All known utilities existing within the limits of construction are either indicated on the plans or visible above ground. For the purpose of this Article, the limits of proposed construction are defined as follows:

(a) Limits of Proposed Construction for Utilities Paralleling the Roadway.

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

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

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

(b) Limits of Proposed Construction for Utilities Crossing the Roadway in a Generally Transverse Direction.

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

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions as indicated in the contract. It is further understood the actual location of the utilities may be located anywhere within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c), and the proximity of some utilities to construction may require extraordinary measures by the Contractor to protect those utilities.

No additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from known utility facilities or any adjustment of them, except as specifically provided in the contract.

107.38 Adjustments of Utilities within the Project Limits. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation, or altering of an existing utility facility in any manner.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting known utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits as described in Article 107.37. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be indicated in the contract.

The Contractor may make arrangements for adjustment of utilities indicated in the contract, but not scheduled by the Department for adjustment, provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any such adjustments shall be the responsibility of the Contractor.

107.39 Contractor's Responsibility for Locating and Protecting Utility Property and Services. At points where the Contractor's operations are adjacent to properties or facilities of utility companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

Within the State of Illinois, a State-Wide One Call Notice System has been established for notifying utilities. Outside the city limits of the City of Chicago, the system is known as the Joint Utility Locating Information for Excavators (JULIE) System. Within the city limits of the City of Chicago the system is known as DIGGER. All utility companies and municipalities which have buried utility facilities in the State of Illinois are a part of this system.

The Contractor shall call JULIE (800-892-0123) or DIGGER (312-744-7000), a minimum of 48 hours in advance of work being done in the area, and they will notify all member utility companies involved their respective utility should be located.

For utilities which are not members of JULIE or DIGGER, the Contractor shall contact the owners directly. The plan general notes will indicate which utilities are not members of JULIE or DIGGER.

The following table indicates the color of markings required of the State-Wide One Call Notification System.

Utility Service	Color
Electric Power, Distribution and Transmission	Safety Red
Municipal Electric Systems	Safety Red
Gas Distribution and Transmission	High Visibility Safety Yellow
Oil Distribution and Transmission	High Visibility Safety Yellow
Telephone and Telegraph System	Safety Alert Orange
Community Antenna Television Systems	Safety Alert Orange
Water Systems	Safety Precaution Blue
Sewer Systems	Safety Green
Non-Potable Water and Slurry Lines	Safety Purple
Temporary Survey	Safety Pink
Proposed Excavation	Safety White (Black when snow is on the ground)

The State-Wide One Call Notification System will provide for horizontal locations of utilities. When it is determined that the vertical location of the utility is necessary to facilitate construction, the Engineer may make the request for location from the utility after receipt of notice from the Contractor. If the utility owner does not field locate their facilities to the satisfaction of the Engineer, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners.

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

In the event of interruption of utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

107.40 Conflicts with Utilities. Except as provided hereinafter, the discovery of a utility in an unanticipated location will be evaluated according to Article 104.03. It is understood and agreed that the Contractor has considered in the bid all facilities not meeting the definition of a utility in an unanticipated location and no additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from such facilities.

When the Contractor discovers a utility in an unanticipated location, the Contractor shall not interfere with said utility, shall take proper precautions to prevent damage or interruption of the utility, and shall promptly notify the Engineer of the nature and location of said utility.

(a) Definition. A utility in an unanticipated location is defined as an active or inactive utility, which is either:

(1) Located underground and (a) not shown in any way in any location on the contract documents; (b) not identified in writing by the Department to the Contractor prior to the letting; or (c) not located relative to the location shown in the contract within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c); or

(2) Located above ground or underground and not relocated as provided in the contract.

Service connections shall not be considered to be utilities in unanticipated locations.

(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work applicable to the utility or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows:

(1) Minor Delay. A minor delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than two hours, but not to exceed three weeks.

(2) Major Delay. A major delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than three weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the contractor's rate of production decreases by more than 25 percent and lasts longer than seven days.

(c) Payment. Payment for Minor, Major and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to three weeks plus the cost of move-out to either the Contractor's yard or another job, whichever is less. Rental equipment may be paid for longer than three weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Whether covered by (1), (2) or (3) above, additional traffic control required as a result of the operation(s) delayed will be paid for according to Article 109.04 for the total length of the delay.

If the delay is clearly shown to have caused work, which would have otherwise been completed, to be done after material or labor costs have increased, such increases may be paid. Payment for materials will be limited to increased cost substantiated by documentation furnished by the Contractor. Payment for increased labor rates will include those items in Article 109.04(b)(1) and (2), except the 35 percent and ten percent additives will not be permitted. On a working day contract, a delay occurring between November 30 and May 1, when work has not started, will not be considered as eligible for payment of measured labor and material costs.

Project overhead (not including interest) will be allowed when all progress on the contract has been delayed, and will be calculated as 15 percent of the delay claim.

(d) Other Obligations of Contractor. Upon payment of a claim under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this Provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this Provision."

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: November 1, 2012

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Materials.

Add the following to Article 1030.02 of the Standard Specifications.

“(h) Warm Mix Asphalt (WMA) Technologies (Note 3)”

Add the following note to Article 1030.02 of the Standard Specifications.

“Note 3. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, “Warm-Mix Asphalt Technologies”.”

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.

“(d) 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. Additional mixture verification requirements include Hamburg Wheel testing according to Illinois Modified AASHTO T324 and tensile strength testing according to Illinois Modified AASHTO T283 which shall meet the criteria in Tables 1 and 2 respectively herein. The Contractor shall provide the additional material as follows:
 - a. Four gyratory specimens to be prepared in the Contractor’s lab according to Illinois Modified AASHTO T324.
 - b. Sufficient mixture to conduct tensile strength testing according to Illinois Modified AASHTO T283.

Table 1. Illinois Modified AASHTO T324 Requirements ^{1/}

Asphalt Binder Grade	# Wheel Passes	Max Rut Depth in. (mm)
PG 76-XX	20,000	1/2 in. (12.5 mm)
PG 70-XX	15,000	1/2 in. (12.5 mm)
PG 64-XX	7,500	1/2 in. (12.5 mm)
PG 58-XX	5,000	1/2 in. (12.5 mm)

1/ Loose WMA shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Table 2. Tensile Strength Requirements

Asphalt Binder Grade	Tensile Strength psi (kPa)	
	Minimum	Maximum
PG 76-XX	80 (552)	200 (1379)
PG 70-XX		
PG 64-XX	60 (414)	200 (1379)”
PG 58-XX		

Production.

Revise the second paragraph of Article 1030.06(a) of the Standard Specifications to read:

“At the start of mix production for HMA, WMA, and HMA using WMA technologies, QC/QA mixture start-up will be required for the following situations; at the beginning of production of a new mix of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix.”

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

“Warm mix technologies shall be as follows.

- (1) 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 and tensile strength testing according to Illinois Modified AASHTO T283 (approximately 110 lb (50 kg) total).
- (2) Upon completion of the start-up, WMA, or HMA using WMA technologies, production shall cease. The Contractor may revert to conventional HMA production provided a start-up has been previously completed for the current construction season for the mix design. WMA, or HMA using WMA technologies, may resume once all the test results, including Hamburg Wheel results are completed and found acceptable by the Engineer.”

Add the following after the first paragraph of Article 1030.05(d)(2)c. of the Standard Specifications:

“During production of each WMA mixture or HMA utilizing WMA technologies, the Engineer will request a minimum of one randomly located sample, identified by the Engineer, for Hamburg Wheel testing to determine compliance with the requirements specified in Table 1 herein.”

Quality Control/Quality Assurance Testing.

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

Parameter	Frequency of Tests	Frequency of Tests	Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture	All Other Mixtures	
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) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	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)	N/A	Illinois-Modified AASHTO R 35
Air Voids Bulk Specific Gravity of Gyratory Sample Note 5.	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)	1 per 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)	1 per day	Illinois-Modified AASHTO T 209

Note 1. The No. 8 (2.36 mm) and No. 30 (600 μ m) sieves are not required for All Other Mixtures.

Note 2. 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 3. 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 4. The Engineer reserves the right to require additional hot bin gradations for batch

Note 5. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature it shall be reheated to standard HMA compaction temperatures.”

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

The Contractor shall provide 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 on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

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 260 working days.

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006

Revised: January 1, 2012

Description. 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 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. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

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.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

Where: CA = Cost Adjustment, \$.

BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).

BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).

%AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V 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_V and undiluted emulsified asphalt will be considered to be 65% AC_V.

Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 24.99) / 1000$. 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: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$
For bituminous materials measured in liters: $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

Where: A = Area of the HMA mixture, sq yd (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.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

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 No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract?

Yes No

Signature: _____ **Date:** _____

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

Description. 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 work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials 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
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	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_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting, \$/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.

Progress Payments. 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.

Final Quantities. Upon completion of the work and determination of final pay quantities, an adjustment will be prepared to reconcile any differences between estimated quantities previously paid and the final quantities. The value for the balancing adjustment will be based on a weighted average of FPI_P and Q only for those months requiring the cost adjustment. The cost adjustment will be applicable to the final measured quantities of all applicable pay items.

Basis of Payment. 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:

$$\text{Percent Difference} = \{(FPI_L - FPI_P) \div FPI_L\} \times 100$$

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 provision as part of the contract plans for the following categories of work?

- | | | |
|--|-----|--------------------------|
| Category A Earthwork. | Yes | <input type="checkbox"/> |
| Category B Subbases and Aggregate Base Courses | Yes | <input type="checkbox"/> |
| Category C HMA Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category D PCC Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category E Structures | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2009

Description. 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.

Types of Steel Products. 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 has a contract value of \$10,000 or greater.

Documentation. 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:

$$SCA = Q \times D$$

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_M = 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).

$MPI_L =$ The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. 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 MPI_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.

Basis of Payment. 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:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

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 as part of the contract plans for the following items of work?

- | | | |
|--|-----|--------------------------|
| Metal Piling | Yes | <input type="checkbox"/> |
| Structural Steel | Yes | <input type="checkbox"/> |
| Reinforcing Steel | Yes | <input type="checkbox"/> |
| Dowel Bars, Tie Bars and Mesh Reinforcement | Yes | <input type="checkbox"/> |
| Guardrail | Yes | <input type="checkbox"/> |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms | Yes | <input type="checkbox"/> |
| Metal Railings (excluding wire fence) | Yes | <input type="checkbox"/> |
| Frames and Grates | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT

Public Act 97-0199 requires the Department to submit quarterly reports regarding the number of minorities and females employed under Project Labor Agreements. To assist in this reporting effort, the Contractor shall provide a quarterly workforce participation report for all minority and female employees working under the project labor agreement of this contract. The data shall be reported on Construction Form BC 820, Project Labor Agreement (PLA) Workforce Participation Quarterly Reporting Form available on the Department's website <http://www.dot.il.gov/const/conforms.html>.

The report shall be submitted no later than the 15th of the month following the end of each quarter (i.e. April 15 for the January – March reporting period). The form shall be emailed to DOT.PLA.Reporting@illinois.gov or faxed to (217) 524-4922.

Any costs associated with complying with this provision 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.

Illinois Department of Transportation
PROJECT LABOR AGREEMENT

This Project Labor Agreement (“PLA”) is entered into this _____ day of _____, by and between the Illinois Department of Transportation (“IDOT” or “Department”) in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades Council made signatory hereto by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of itself and each of its affiliated members (individually and collectively, the “Union”). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT’s Prime Contractor and each of its relevant subcontractors of whatever tier (“Subcontractor” or “Subcontractors”) on Project Name (hereinafter, the “Project”).

ARTICLE 1 - INTENT AND PURPOSES

- 1.1. This PLA is entered into in furtherance of Illinois Executive Order No. 2010-03 and P.A. 097-0199. It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays or other disruptions to the prosecution of the work.
- 1.2. As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall be required to sign a “Contractor Letter of Assent”, in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company or entity that does not agree in writing to become bound by the terms of this PLA prior to commencing such work.
- 1.3. It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall constitute a bargaining unit separate and distinct from all others. The Parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.

- 1.4. In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control.

For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.

- 1.5. Subject to the provisions of paragraph 1.4 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.
- 1.6. Subject to the limitations of paragraphs 1.4 and 1.5 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.5 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.
- 1.7. To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice from any applicable fringe benefit fund, IDOT will withhold from the Prime Contractor payment of any delinquencies arising from this Project.

- 1.8. In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

- 2.1 The term Construction Work as used herein shall include all “construction, prosecution, completion, or repair” work performed by a “laborer or mechanic” at the “site of the work” for the purpose of “building” the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5.
- 2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.
- 2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.
- 2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre-fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.
- 2.5 Unions commit to furnishing qualified and skilled craft persons as required by the Prime Contractor and its Subcontractors in fulfillment of their obligations to complete the Project. In order to promote the long-term development of a skilled and knowledgeable work force, the parties are encouraged to utilize apprentices to the maximum extent permitted by the applicable collective bargaining agreement.
- 2.6 The parties are mutually committed to promoting a safe working environment for all personnel at the job site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

- 2.7 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.
- 2.8 All parties to this PLA agree that they shall not discriminate against any employee based on race, creed, color, national origin, union activity, age, or gender as required by all applicable federal, state, and local laws.
- 2.9 The Parties hereto agree that engineering consultants and materials testing employees, to the extent subject to the terms of this PLA, shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.

ARTICLE III - ADMINISTRATION OF AGREEMENT

- 3.1 In order to assure that all parties have a clear understanding of the PLA and to promote harmony, a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.
- 3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.
- 3.3 Not less than once per month, Prime Contractor and all Subcontractors shall make available in writing to the Unions a Project status report that shall include, though not necessarily be limited to, planned activities for the next 30 day period and estimated numbers of employees by craft required for the next 30 day period. The purpose of this Project status report is to promote effective workforce planning and to facilitate resolution of any potential jurisdictional or other problems.

- 3.4 Not later than the earlier of (a) five business days following the pre-job conference, or (b) commencement of Construction Work, the Unions and Prime Contractor (on behalf of itself and all its subcontractors of whatever tier) shall confer and jointly designate a slate of three (3) permanent arbitrators (each a "Permanent Arbitrator") for the purpose of hearing disputes pursuant to Articles V and VII of this PLA. The slate of Permanent Arbitrators shall be selected from among the following individuals: Thomas F. Gibbons, Robert Perkovich, Byron Yaffee, and Glenn A. Zipp. In the event that the Unions and Prime Contractor are not able to agree on a full slate of three Permanent Arbitrators, the Department, after consultation with the Unions and Prime Contractor, shall designate such additional Permanent Arbitrators as may be necessary to establish the full slate. A single Permanent Arbitrator shall be selected from the slate of three on a rotating basis to adjudicate each arbitrable matter as it arises. In the event a Permanent Arbitrator is not available to adjudicate a particular matter in the order of rotation, the arbitration assignment shall pass to the next available Permanent Arbitrator.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

- 4.1 The standard work day for Construction Work on the Project shall be an established consecutive eight (8) hour period between the hours of 7:00 a.m. and 5:00 p.m. with one-half hour designated as unpaid period for lunch. The standard work week shall be five (5) consecutive days of work commencing on Monday. Starting time shall be established at the pre-job conference, and shall be applicable to all craft employees on the Project unless otherwise expressly agreed in writing. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.
- 4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.
- 4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.
- 4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.

- 4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower or techniques of construction other than as may be required by safety regulations.
- 4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.
- 4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V - GRIEVANCE AND ARBITRATION PROCEDURES

- 5.1 Except as provided in Articles VI or VII, it is specifically agreed among the parties that any grievance or dispute arising out of the interpretation or application of this PLA shall be settled by means of the expedited arbitration process set forth in Paragraph 5.2 below. No such grievance or dispute shall be recognized unless called to the attention of the Prime Contractor and relevant Subcontractor by the Union or to the Union by the Prime Contractor or relevant Subcontractor within five (5) working days after the alleged violation was committed or discovered by the grieving party.
- 5.2 Grievances shall be settled according to the following procedure:
 - 5.2.A. Step 1. The dispute shall be referred to the Steward of the craft union involved and a representative of the Prime Contractor and relevant Subcontractor at the job-site.
 - 5.2.B. Step 2. In the event that the Steward and the contractors' representatives at the job-site cannot reach agreement within two (2) working days after a meeting is arranged and held, the matter shall be referred to the Union Business Manager and to executive representatives of the Prime Contractor and relevant Subcontractor.

- 5.2.C. Step 3. In the event the dispute is not resolved within five (5) working days after completion of Step 2, the relevant parties shall request a Permanent Arbitrator as determined in accordance with paragraph 3.4 of this PLA, who shall, within ten (10) working days, hear the grievance and make a written decision. Such decisions shall be final and binding on all parties. The parties shall each pay the expense of their own representative. The expense of the Permanent Arbitrator shall be divided equally between (1) the Prime Contractor and/or relevant Subcontractor, and (2) the involved Union.
- 5.3 Any failure of a party to comply fully with such final and binding decision of the Permanent Arbitrator may result in removal of the non-complying party from the site, in a holdback from the Prime Contractor or Subcontractor of any amounts awarded, or in such other relief as the Department may reasonably determine is necessary to promote final resolution of the dispute.
- 5.4 In the event any dispute or grievance should arise, the parties expressly agree that it shall be resolved without occurrence of any strike, work stoppage, slow-down or other prohibited activities as provided in Article VII of this PLA. Individuals or parties violating this section shall be subject to immediate discharge or other discipline.

ARTICLE VI - JURISDICTIONAL DISPUTES

- 6.1 As used in this Agreement, the term "jurisdictional dispute" shall be defined as any dispute, difference or disagreement involving the assignment of particular work to one class or craft of employees rather than to a different class or craft of employees, regardless of that Contractor's contractual relationship to any other employer, contractor, or organization on the site.
- 6.2 It is agreed by and between the parties to this Agreement that any and all jurisdictional disputes shall be resolved in the following manner; each of the steps hereinafter listed shall be initiated by the parties in sequence as set forth:
- (a) Negotiation by and between the Local Business Representative of the disputing Union and Employer shall take place within two (2) business days. Business days are defined as Monday through Friday excluding contract holidays. Such negotiations shall be pursued until it is apparent that the dispute cannot be resolved at the local level.
 - (b) The International Representatives of the disputing Union shall meet or confer and attempt to resolve said dispute. This meeting shall take place within two (2) business days. Business days are defined as Monday through Friday excluding contract holidays.

- (c) The parties to the Jurisdictional Dispute shall submit the dispute directly to an Arbitrator after complying with paragraph (2b) above. The parties shall meet with the Arbitrator within three (3) business days. Business days are defined as Monday through Friday excluding contract holidays. An Arbitrator will be selected based on availability from the slate of permanent Arbitrators. The Arbitrator's bench decision will be given the day of the hearing and will be final and legally binding on this project only. The Arbitrator's bench decision will be implemented without delay. The cost of Arbitration will be shared equally by the disputing parties. Any party to the dispute can require that a "long form" written decision be provided from the Arbitrator, however the cost of the "long form" written decision will be the responsibility of the party making the request.

Notes:

- A jurisdictional dispute may be submitted based upon a pre-job assignment.
 - If any party to the jurisdictional disputes does not fully comply with the steps and time limits with each step, then the party in non-compliance will lose by "automatic default".
 - Time limits at any step can be extended if all parties to the jurisdictional dispute mutually agree in writing.
 - All parties to a jurisdictional dispute can mutually agree to waive the time limits in steps (a) and (b) and proceed directly to an expedited arbitration hearing.
- (d) In rendering his decision, the Arbitrator shall determine:
- (1) First whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between the National or International Unions to the dispute governs;
 - (2) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider whether there is a previous decision of record governing the case;

- (3) If the Arbitrator finds that a previous decision of record governs the case, the Arbitrator shall apply the decision of record in rendering his decision except under the following circumstances. After notice to the other parties to the dispute prior to the hearing that it intends to challenge the decision of record, if a trade challenging the decision of record is able to demonstrate that the recognized and established prevailing practice in the locality of the work has been contrary to the applicable decision of record, and that historically in that locality the work in dispute has not been performed by the other craft or crafts, the Arbitrator may rely on such prevailing practice rather than the decision of record.

If the craft relying on the decision of record demonstrates that it has performed the work in dispute in the locality of the job, then the Arbitrator shall apply the decision of record in rendering his decision. If the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wagers or by the use of vertical agreements, the Arbitrator shall rely on the decision of record rather than the prevailing practice in the locality.

- (4) If no decision of record is applicable, the Arbitrator shall then consider the established trade practice in the industry and prevailing practice in the locality; and
- (5) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interest of the consumer or the past practice of the employer shall not be ignored.

The Arbitrator shall set forth the basis for his decision and shall explain his findings regarding the applicability of the above criteria. If lower-ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the job in dispute.

- (6) Agreements of record are applicable only to the party's signatory to such agreements. Decisions of record are applicable to all trades.
- (7) The Arbitrator is not authorized to award back pay or any other damages for a mis-assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an Arbitrator.

6.3 The signatory parties to this Agreement agree that jurisdictional disputes cannot and shall not interfere with the efficient and continuous operations required for the successful application of this Agreement. In the event a dispute arises, the Contractor's assignment shall be followed until the dispute is resolved.

- 6.4 Equipment or material delivered to the job site will be unloaded promptly without regard to jurisdictional disputes which will be handled as per the provisions of this Agreement. The Contractor will supply the Union with delivery schedules, allowing as much time as possible to insure the appropriate crafts will be available to unload the materials or equipment.
- 6.5 All signatory affiliates agree that upon request, a representative shall be assigned without delay to attempt a settlement in the event of a question on assignments.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

- 7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site.

Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

- 7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities. No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates in or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from all work on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.
- 7.3 During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.
- 7.4 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.
- 7.5 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.6 of this Article.

- 7.6 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breach of this Article is alleged:
- 7.6.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to Article III of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.
 - 7.6.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.
 - 7.6.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.
 - 7.6.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.
 - 7.6.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

- 7.7 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.
- 7.8 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.
- 7.9 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – MISCELLANEOUS

- 8.1 If any Article or provision of this PLA shall be declared invalid, inoperative or unenforceable by operation of law or by final non-appealable order of any tribunal of competent jurisdiction, such provision shall be deemed severed or limited, but only to the extent required to render the remaining provisions of this PLA enforceable consistent with the intent of the parties. The remainder of this PLA or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.
- 8.2 The term of this PLA shall commence as of and from the date of the notice of award to the Prime Contractor and shall end upon final acceptance by IDOT of all work on the Project by the parties hereto.
- 8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.

- 8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.
- 8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

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Execution Page

Illinois Department of Transportation

William R. Frey, Interim Director of Highways

Matthew R. Hughes, Director - Finance & Administration

Ellen Schanzle-Haskins, Chief Counsel

Ann L. Schneider, Secretary

(Date)

Illinois AFL-CIO Statewide Project Labor Agreement Committee, representing the local unions listed below:

(Date)

List Union Locals:

**** RETURN WITH BID ****

Exhibit A – Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract No. 72961], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

**** RETURN WITH BID ****

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. 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 on-the-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 non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; 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 single-user 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.

b. (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 from the Wage and Hour Division Web site at <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 (<https://www.epls.gov/>), 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.

* * * * *

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 (<https://www.epls.gov/>), 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.

* * * * *

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.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.state.il.us/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.